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ABSTRACT

To gain information about the reported characteristics, operational functions, procedures, and service orientations of Educational Information Service sites, interviews were conducted with managerial personnel at 53 sites across the United States. Interview responses were coded to form 109 frequency rank ordered displays which are summarized, analyzed, and interpreted. This information site survey forms half of a larger study intended to provide guidance for decision making and planning at all levels in the United States Educational Information Service complex. The response displays are reproduced in the Appendix. (STS)

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System Development Corporation

# STUDY OF INFORMATION REQUIREMENTS IN EDUCATION

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# SURVEY OF EDUCATION INFORMATION SERVICE SITES

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## EXECUTIVE SUMMARY

Detailed information was gathered about reported characteristics, operational functions, procedures, and service orientations from a sample of 53 Education Information Service (EIS) sites stationed throughout the United States. A companion project, to be reported separately, gathered corresponding information about the education information seeking and usage practices, preferences, and unfilled desires of a large sample of all major types of formal education personnel in the country. Together, the two kinds of information will be used to help provide guidance to the work-related decisions of planners and managers at all levels in the United States Education Information Service complex.

Information about the Education Information Service sites was gathered through on-site interviews, primarily with the managers. Their answers to questions were coded for computer tabulation into frequency rank-ordered displays, which are analyzed and interpreted in this report. A summary of interpretive themes is provided, citing the paragraphs of analysis and interpretation which support the themes. These themes are:

- The sample adequately represents the wide range of types of EIS sites.
- The great technical diversity represented points up the need for technically sophisticated leadership and for flexibility in providing developmental aid to such operations.
- There are important and consistent differences between collections which serve different functions, and neither leadership or planning and policy factors can be safely generalized across such different types.
- EIS managers are strongly oriented toward providing a maximum of meaningful information service to their users.
- The level and quality of contact between EISs and their users, while exemplary for some, cannot safely be characterized as uniformly high.
- There are clearly distinguishable operating service orientations among sites, which have important ramifications for maintaining the overall basis for satisfying education information user needs in the United States. The evolution and stability of such orientations bears more study.

- For a sizable proportion of EIS sites, there is unused capacity, unserved potential audience, and well-motivated managers; but the problem of contacting and stimulating potential users has not yet been adequately solved.

- There is considerable agreement about the kinds of new files that would be useful. There is a core of commonly needed content, but also a complement of diverse, less universal needs.

- The appropriate circumstances for self-support versus outside aid for EISs is a topic worthy of discussion to establish common guidelines.

- Staff is the most flexible, general purpose, and costly single item.

- A wide range of equipment and technology is used, but advanced technology is not expected to provide ready-made solutions to major problems.

- Inter-organizational communications follow the familiar vertical wholesale-retail pattern conducive to efficient distribution, but not to problem sharing and solving between retailers.

- EIS managers have few sources of help in coping with instabilities introduced by outside factors.

- EIS managers are very desirous of increased cooperation and mutual problem solving, to be coordinated from higher levels.

## INTRODUCTION AND BACKGROUND

There has long been a concern that those involved in education--lay persons as well as professional educators, policy-makers and practitioners as well as researchers--should be provided with the information necessary to enable them to perform properly their various functions. Throughout the United States, a broad range of resources has evolved or been created to help implement education information. The National Institute of Education's Office of Dissemination and Resources (and, before it, the National Center for Educational Communications at USOE) has particularly concerned itself with the coordination and improvement of these resources.

Drawing upon models of scientific and technical information systems, USOE created the Educational Resources Information Center (ERIC*) in the mid-1960s. In keeping with the decentralized nature of education, ERIC was conceived as a decentralized network of clearinghouses whose responsibilities were to acquire and process documents in their own specific fields. The processed data produced by the clearinghouses were then sent to the central ERIC facility to be incorporated into the central data base. The production of the ERIC data base has been relatively successful and has remained essentially unchanged since its early days. One of the major weaknesses of ERIC has been not in its productions, but in its linkage to its intended audiences.

ERIC was long considered (and still is by many) primarily an information tool for researchers. As a result, in spite of attempts to increase the content relevance of ERIC to practitioners, its use by practitioners and policymakers has been disappointingly low. The problem of low use by these groups tends to be shared by most resources that are essentially "passive" in their interaction with users; for this reason, a large variety of organizations came into being to help put users in touch with the information they need. These organizations frequently make use of such major resources as ERIC, increasing the

*Definitions of the acronyms used in this report are provided on pages A-185 and A-186.

accessibility by serving as intermediaries; in addition, they draw upon numerour other resources, both formal and informal, many of which are developed locally.

Late in 1973, NIE issued a report entitled Building Capacity for Renewal and Reform, in which its Task Force on Resources Planning and Analysis concluded that ERIC and the other education information resources, even taken together, were not meeting the information needs of the education community in terms of comprehensiveness, relevance, utility, and accessibility. As one facet of an ongoing process by which the complex of education information resources might improve its responsiveness in these areas, NIE funded the current project.

## PROJECT DESCRIPTION

The purpose of the project, of which the present survey is one of two parts, is to provide information to help guide the decisions of those responsible for designing, planning, managing, maintaining, and improving information services to workers in formal education in the United States. The complex of such services is spread across the nation at almost every level of political, governmental, and private organizational hierarchies, as are the responsible decision-makers. The decision-relevant information gathered by this project consists of two kinds: (1) facts and opinions as reported by respondents (mostly managers) interviewed at Education Information Service sites (hereafter EISs) in the United States, concerning the characteristics of those EISs; and (2) facts and opinions about education information seeking and usage gathered by interview and by mail questionnaire from a large sample of education information users.

The present report describes results from the first-mentioned task, namely, an organized compilation of facts and opinions about some decision-relevant characteristics of EISs in the United States. The companion report will be issued at the end of August, 1976. The guiding concept for both tasks was to try to provide data to help answer the question: "What do the planners and managers of the many components of the United States EIS complex need to know about their users and about the EIS complex in order to make more effective

work-related decisions?" The tasks are viewed as early steps in developing means to provide useful information to EIS planners and managers on an efficiently updated basis.

The tasks of designing instruments to gather the two kinds of information were closely coordinated so that the data gathered about both servers and those served would be sensitive and complete with respect to the views that each holds about the other. Development of the final information-gathering instruments for both tasks was preceded by pilot interview phases to round out and pre-test the instruments. These preliminary results were exchanged in detail between tasks (both of which were under the leadership of one project manager), and a formalized checklist was followed to assure that no points relevant to the final form of either instrument escaped notice. The instruments and survey plans were also reviewed by a panel of outside consultants in education retained by NIE, and by survey experts at the Office of Management and Budget.

SAMPLE SELECTION

A necessary first step in sampling was to provide a limiting definition of an Education Information Service (EIS). In its broadest sense, the term Education Information Service could describe any resource that conveys information about education. This might include a telephone book, since it lists the phone numbers of schools and school offices; it can also include a professor of education, since he or she normally imparts information about education. In order to limit the types that would be surveyed to formally recognizable services, it was necessary to develop a working definition that could be applied to potential candidates.

For the purposes of this study, an Education Information Service was defined as an administratively isolable unit consisting of an education information

collection(s) with a conduit or means of outside access. An education information collection was defined as having, at a minimum, the following characteristics:

- o A physically locatable set of information-bearing entities
- o Use by other than those who gathered it
- o Arrangements for access
- o An estimable topical contents pattern
- o An estimable balance of information origins (immediate sites, neighborhood, local, regional, sectional, national)
- o An estimable user traffic by user types and geographic location
- o Some minimum percentage of topical contents in education
- o Some minimum percentage of service to education-related users
- o An estimable time for processing for availability

A conduit was defined as some minimum pattern of activities in support of, and supported by, the collection(s). These activities might include the following:

- o Identification and gathering of items for the collection
- o Organizing, maintaining, and providing intellectual access to the collection
- o Identification of, contact with, potential users (public relations)
- o Direct sales, order taking, delivering of products
- o Information interpretation, product tailoring
- o Consumer feedback and quality control
- o Expansion or redirection of market, service, or collection

To guide sampling selection, a matrix (Figure 1) consisting of a dimension of assumed main orientations and a dimension of geographic scope of service was used. The purpose of the matrix was to provide a guideline for the selection of a relatively small, strategic sample of EISs, which would represent as broad

| Service Areas | Main Orientations: Audience-Oriented | Collection-Oriented | Product-Oriented |
|---|---|---|---|
| National | 6 | 7 | 8 |
| State | 11 | 0 | 2 |
| Regional | 8 | 1 | 2 |
| Local | 3 | 2 | 3 |

Figure 1. Sampling Matrix Selection

a span of situations as possible. The matrix is based on the ad hoc assumptions that: (1) the types of services provided by a particular EIS are a function of its main orientation, and (2) the types of services provided are related to the geographic scope of the area served.

With regard to the main orientations dimension of the matrix, the hypothesis was that there are three non-exclusive directions that a service can take which shape the nature of its operations, collections, products, and services. The audience-oriented EIS is primarily concerned with satisfying the needs of its target audience. This orientation has impact on the nature of service provided, the types of resources called upon, and the responsiveness to specific requests, in that the goal of audience-oriented service may require great flexibility and in-depth effort in filling needs as they develop and change.

A collection-oriented EIS, while having a user service function, would tend to be more inwardly focused. In this case, the development and maintenance of the collection itself (for whatever audiences find it most appropriate to to their needs) is the primary objective. Because of this objective, services to users would tend to be limited to the content area maintained by the information collection. Furthermore, the level of individualized service would tend to be less than that found in a service designed primarily to provide services to users.

An EIS that is product-oriented focuses its efforts on a predetermined output product or line of products through which it provides information to users. As with the collection-orientation, it serves a <u>type</u> of audience rather than a specific, particular audience. This means that the audience can change as needs change, to be replaced by others for whom the product has become appropriate.

In the assignment of selected EISs to cells in the matrix, several points should be noted. First of all, initial assumptions about both the orientation and the

scope of service area of the service sites had to be made on the basis of available information and/or brief telephone conversations with their personnel. Also, the initial limiting definition of an EIS, while useful in selection of collection-oriented services, could not be followed strictly in the case of audience-oriented and product-oriented services. The problem with fitting the definition to audience-oriented services is that they often call upon whatever resources are necessary to meet the requirements of their audience's needs. In some cases this may involve such a broadly disparate range of content areas and formats that no real collection is maintained by the service, but rather access is made to numerous outside collections.

Product-oriented services meet similar problems in the application of the initial limiting definition. The difficulty here is that the product or products often are the collection. Therefore, some of the assumptions about acquisition and collection maintenance are not applicable, just as they are not applicable for audience-oriented services with out-of-house collections. The issues outlined above, together with logistical factors affection selection (such as geographical convenience, recommendation by another resource, etc.), resulted in an unbalanced distribution across the matrix cells. However, the final sample of services does contain a wide variety of orientations, situations, and perspectives--more differentiated than can be represented on the original selection matrix in Figure 1, which shows the sample size obtained for each cell.

As the result of conducting the interviews and analyzing the data, a fourth orientation (service-oriented) was defined, and a number of the sites were reclassified to that category. The bases for the new orientation are discussed in detail on pages 74-79, and a table of sample characteristics, including the revised orientation assignments, is presented as Figure 2 on pages A-183 and A-184.

INTERVIEW PROCEDURES

A total of 53 EISs were interviewed at their sites in sessions ranging in length from two-and-a-half to eight hours, and averaging three hours. Although the majority of the interviews involved a single respondent representing a service, in several cases two or more persons participated in the interview, either simultaneously or serially. The multiple respondents complemented one another by filling in where areas of familiarity differed and by supplying different viewpoints to the same questions where role differences caused varying perspectives.

The interview instrument consisted of five separate sections, used in combinations appropriate to the type(s) of collection at the service being interviewed. All respondents were asked to answer sections G and D. Section G deals with background questions and general issues, while Section D deals with intermediation and linkage (the conduit between the collection and its users). The three remaining sections, A, B, and C, are concerned primarily with the collection or product offered by the service. Section A treats Print materials, Section B Non-Print materials, and Section C Machine-Readable files.

The interviewer was guided in choosing the appropriate section(s) by information available prior to the interview. In addition, once the interview was in progress, the interviewer considered the respondent's description of the service's activities in the selection of sections. Section A was administered to sites providing physical access to printed materials; Section B was administered to sites providing physical access to non-print materials; and Section C was administered to sites whose collection (i.e., data or bibliographic materials or citations) was in machine-readable form.

## SUMMARY OF INTERPRETATIONS

The Analysis and Interpretation of Results consists of numbered paragraphs which cite the response displays contained in the Appendix, describe features of the results felt to be important, and provide interpretations of those features. The present section highlights the recurring themes in these interpretations and organizes them into a brief sketch. The response displays in the Appendix are faithful renderings of facts and opinions about Education Information Services as reported by their managers. The Analysis and Interpretation of Results is the handiwork of the writers of this report, as is the summary of interpretive themes. No claim is made that these are the only interpretations, or the best ones; they are what we were able to see in the results. Theme statements are brief, presented without caveats and qualifications; for each theme, identifying numbers of supporting paragraphs from the Analysis and Interpretation of Results are given in parentheses.

### SAMPLE CHARACTERISTICS

The sample was chosen to obtain as many different kinds of Education Information Services (EISs) operating in an many different circumstances as possible, and is therefore not proportionally representative. For this reason, and because of small sample sizes for some types of EISs, statistical tests of significance are not appropriate. The results nevertheless provide a basis for suggesting practical actions and for framing ways to check the assumptions and probable results of such actions before taking them (5, 6, 7). The core EIS activity is providing intellectual access to, and materials from, bibliographic collections; but there is also a wide range of purposes, activities, contents, and audiences outside the central activities. EIS collection contents range from general education through many special contents; missions are general purpose to highly specialized; service areas range through local, statewide, and nation-wide to international (8, 9). EISs also have a spectrum of institutional affiliations and a diffuse pattern of funding sources (10). Although about half the audience consists of primary and secondary school teaching

staff, the remainder is divided among a very diverse group of education-related occupational roles (58). Apparently, a "strategic" sample was obtained for the study (5).

## DIVERSITY FACTORS

The activities clusters represented by EISs are not a few well-standardized work-role combination patterns, but rather show considerable variety (13). Similarly, the kinds of materials, artifacts, functions, and activities considered by EISs to be education information resources are numerous (43). Many sites perform a large proportion of all service activities, but the activity mixes are unique (81). The distribution of specific information products and services reported as needed but unavailable is, for the most part, flat and diffuse (99). Such a diversity in so many important factors suggests that a high quality of technical leadership is required for a truly successful EIS (14), and points to the flexibility needed in providing effective developmental aid for such operations (100).

## TYPES OF COLLECTIONS

Education Information Service collections fall into three format categories: Print and Non-Print collections and Machine-Readable files. Some sites have two or even all three types (47). Many operational features are relatively indistinguishable between types (45, 46), but there are also important differences. Non-Print collections are smallest, Print collections average three times their size, and Machine-Readable files are eight times Non-Print size (49). Growth patterns also show differences (50), as do patterns of service function (51, 52), subject focus (53), unfillable requests (54), and collection maintenance activities (55, 56, 57). Machine-Readable services differ from the other two types in the contacts they have with users for purposes of sensing needs (60, 61, 62, 63) and in the kind of explanatory materials

and service guides they offer (84, 85). Non-Print collections are more often judged as insufficiently comprehensive than are the other two types (74). Other differences are reported in the context of later summaries. Technical know-how for planning, managing, and developing one type of collection does not necessarily carry over to another type, and it is clear that each type serves separate, strongly needed functions. To the extent that planning and policy-making activities are intended to be refined by such technical considerations, the differences among types become important.

## ORIENTATION TOWARD USER AUDIENCE

The most frequently mentioned consideration contributing to plans for change in EISs is that of matching services to user needs (24). Only about one out of ten EIS managers is satisfied with the way user information needs are currently being served in education (25). Two-thirds of the specific factors mentioned as contributing to this insufficient satisfaction have to do with lack of success in contacting and motivating users and potential users (26). Solving the problems of contacting and motivating users is most frequently seen as the best way to provide educators with more timely, accessible, and relevant information (42). EIS managers are strongly oriented toward trying to provide a maximum of meaningful information service to their users.

## CONTACT WITH AND CONCEPTION OF USERS

Of the reported methods used by EISs to discover what their clientele wants, about one-third involve direct contact at the moment of user need, the remainder being less immediate and direct, such as studies, evaluations, etc. (61). Determining client satisfaction with the service is done mostly by formal feedback and follow-up procedures (62). About one-third of the respondents could describe no use they had made of client need and satisfaction information (63). A variety of special attempts to reach non-users was reported, but no results of such

actions were recounted (64). Most managers have one or more kinds of information they would like to know about their user audience, and most know how they would use that information if they had it (65). The pattern of service request channels is different for Print, Non-Print, and Machine-Readable collections (71); of the modes mentioned for receiving service requests, almost nine-tenths consist of user-active/EIS-reactive patterns, with the remainder being the EIS-outreach types (94). User contact with EISs for purposes of receiving requested information was about equally divided between mail and personal pickup or a delivery service (102). About 40 percent of respondents have no answer or report observing no differences between types of users (103). About 40 percent of respondents think their users are very sophisticated in their information seeking and use; about 20 percent think them very unsophisticated. Having a high proportion of sophisticated users can be viewed in two somewhat opposing lights (104). The level and quality of contact between EISs and their users, while outstanding for some, cannot safely be characterized as uniformly high for all.

ORIGINAL AND CHANGING ORIENTATIONS

Distinctions can be drawn between the different goal-oriented viewpoints that provide initial impetus to the development of a collection of information; i.e., collection-oriented, audience-oriented, product-oriented, evolutionary, high-level decision or program (66). Print and Non-Print collections have very similar distributions of initial impetus orientations. Relatively few respondents report subsequent changes in such initial orientations (66). Machine-Readable respondents more often report their impetus as coming from specific events, persons, or organizations (67). Some of the subtle differences in EIS operating orientations and in their development are hard to portray through response distributions alone. Added impressions of interviewers suggest this as an important area for more attention (105-121).

## STIMULATION OF USER DEMAND

Over half of the sites reported that they have unused capacity to serve additional users, but only about one-tenth would use budgetary increases for tactics aimed at stimulating the demands for service, such as increased marketing, promotion and needs assessment studies (21). Advertising, promotion, and marketing comprise about two percent of current budgetary items (22); about one-fifth of the anticipated budgetary allocation changes mentioned were increases for promotion or marketing (23). About one-third of the sites have plans for future change which include demand-inducing activities such as linking, user involvement, etc.; but no specific mention was made of activities more narrowly promotional in nature (24). For both Print and Non-Print collections, increased outreach to the audience is most often perceived as the best way to enhance the collection for target users (60). There are no sharp differences between patterns of publicity activities for Print, Non-Print and Machine-Readable collections (68); about half claim to do no advertising as such, though most report publishing brochures, flyers, newsletters, bulletins, or announcements (69). To increase the activities that stimulate demand costs resources; if the activities are successful, they involve the commitment of still more resources for more service (70). To argue for more resources for promotional purposes may be perceived as dangerous (87). Thus, for a sizable proportion of EIS sites, there is unused EIS capacity, unserved potential audience, and managers who appear well-motivated to try to bring the two together; but the problem of reliably stimulating user demand in a realistic and efficient fashion has not yet been solved.

## INFORMATION CONTENTS COVERAGE

Many kinds of contents received one or two mentions as inadequately covered, with statistical data being mentioned noticeably more often (42). Breadth of subject focus is widest for Print collections and narrowest for Non-Print.

Technical reasons may account for the intermediate topical breadth of Machine-Readable files, despite their large volumes of records (53). Only Print and Non-Print collections reported unfillable requests, perhaps because the on-line systems used in Machine-Readable files do not usually automatically record unfillable requests (54). Print collections may have more numerous channels from which to obtain their information (55). Input screening practices are most well developed for Print collections and least so for Machine-Readable files, probably because screening is usually done elsewhere for the latter (56). Almost all sites report that users find their collections very useful (60). Print and Machine-Readable collections are equally divided on the question of whether they are large and comprehensive enough, while Non-Print respondents answer the question "No" three times as often as "Yes" (74). The judgment of a collection's appropriate comprehensiveness and exhaustiveness is very complex; standards for making such judgments are needed, and probably could best be developed by a focused mutual exchange between concerned parties (75). Most collections continue to grow, apparently without rigorous guidelines in many cases (76). There is considerable agreement about what kinds of new files would be most useful, with different types of collections having appropriately different but compatible viewpoints; the results suggest a plan of action (82, 83). Although there is a large core of commonly needed content in education information, there is also a complement of less universal needs that is very diverse, requiring sophisticated reference work in some cases (96).

## FUNDING PATTERNS AND BUDGET ALLOCATIONS

Private individuals providing transaction fees and/or membership dues are the most frequently mentioned funding source among a wide range of sources and mechanisms mentioned (10). A comparison of sites having a single funding source with sites having no single source which accounts for as much as half their funding showed the former to have somewhat more sole-concept, business-production, stabilized-enterprise aspects (12). A projected budgetary increase produced three times more mentions of possible budget reallocation actions than did a projected decrease (19).

Conserving and augmenting staff appears to be a major budgetary allocation tradeoff tactic (20). The deliverable service capacity of an EIS, as distinguished from its potential service capacity, may often be very sensitive to staff expansion and contraction (21). There is a widespread practice of reserving services for the users who pay for them, directly or indirectly (89, 90). Most sites levy charges associated with their services, but few say whether, or to what extent, the revenues offset expenses. The issue of self-support versus outside aid for EISs, and the conditions and circumstances appropriate to each, would appear to be a worthy topic for discussions aimed at establishing common guidelines (101).

## STAFFING FACTORS

Staff size ranged from one to 78, averaging seven to 18 persons, and several dozen work-roles were mentioned (14). Almost half the respondents judged their staffs' capabilities as not totally adequate, and described areas for improving such capabilities (15). About half the respondents were planning new activities that would impact on their personnel needs (16). Sites reporting adequate staff were compared with those reporting inadequate staff on a number of questions, none of which showed systematic differences (17, 18). Conserving and augmenting staff appears as an important budgetary allocation tradeoff practice (20). Staff is probably the most flexible and general-purpose resource available to the EIS manager (21), and is the most costly single item in most budgets (22).

## APPLICATIONS OF TECHNOLOGY

A wide range of equipment and technology is utilized in EIS activities and services, so that, as a group, EIS managers are well acquainted with the range of possible applications (73). As compared to EISs utilizing mostly out-of-house collections, those using inhouse collections reported more use of computer

services and skilled consulting personnel (93). A host of different reference tools are used, with few favorites, implying that Education Information Services need sophisticated reference capabilities (96). There appears to be room for improvement in request-service turnaround time for many EISs (97). Providing more rapid response may or may not diminish user satisfaction because of reduced uniformity of relevance of the response contents (98). The main impact of possible technological innovations on EIS activities and users is currently centered in on-line access networks, but a wide range of other possibilities is noted (33). Attempting technological innovation can be risky (34). Advanced technology is not expected to provide ready-made solutions to the main problems confronting EISs (72).

## COMMUNICATION AND COORDINATION WITH OTHER TYPES OF ORGANIZATIONS

Communication for information sharing and seeking and for coordination and marketing is mostly upwards to national, state, or regional levels (37). Planning and coordination activity to improve information service is mostly lateral to Local Education Agencies and schools or to ERIC (38). The most frequent channel for handling requests unfillable at the local level is referral to the ERIC system, with mutual-access and interlibrary loan arrangements being the exceptions (54). Many EISs have restrictions on use that would bar service to users from other areas, organizations, etc. (89). Loan and mutual access arrangements may involve too much overhead maintenance expense for the diffuse pattern of occasional requests that are unfillable locally (90). Formal arrangements with other organizations may more often be for developing the local collection than for facilitating local users' access to the collections of others (91). EISs who provide their services from mainly out-of-house collections appear to do so primarily because of limited internal resources, and they provide less personal consulting and computer-based services (92, 93). The U. S. Education Resources Information Center system (ERIC) is the abstracting and indexing service of choice for most EISs, with a handful of

other important services also being used (95). On the whole, the inter-organizational communication pattern is much more vertically than horizontally oriented, in a familiar "wholesale-retail" pattern designed for distributive efficiency, but not conducive to problem sharing and solving between retailers.

## PROBLEM SOLVING FOCUSES

Organizational and political constraints within which EISs operate do not appear to contribute to a sense of instability (27). The impact of outside factors on the EIS's ability to plan and control its operations and fate is seen as negative six times more often than as positive (28, 29, 30, 31). EIS managers have no very well defined and well developed source of help for solving their problems of planning in the face of instabilities introduced by outside factors (32).

## ORIENTATION TO PROBLEM SHARING AND COOPERATION

Mutual problem sharing and solving with other highly similar EISs would depend on identification of such others. Many EIS managers believe their operation to be quite unique, and half of them can identify only two or fewer similar sites in the United States (35). Technical functions are the main bases for judging similarity between EISs, but not type of EIS audience, despite the common perception that audience motivation is the most ubiquitous problem (36). These findings do not vary noticeably for different types of collections (79, 80). The elimination of duplicative efforts is not viewed as bearing large dividends, nor is it centered on a few main categories (39). Of 44 EIS managers who expressed an opinion on types of desired cooperation, 40 were positive toward it, and averaged two specific suggestions each (40, 41). Five-sixths of the respondents felt that cooperation should be coordinated at national and state levels, in distinction to local levels. Two major themes

in the responses were improved communications between elements of the Education Information Services complex, and incentives for cooperation and non-competition (41). Mutual problem sharing and solving seem badly needed on many fronts, but especially for anticipating and ameliorating the planning instabilities introduced by outside factors, for achieving mutually beneficial cooperative operational stances, and for finding efficient ways to contact and motivate users.

## ANALYSIS AND INTERPRETATION OF RESULTS

1 Response data from the Education Information Service (EIS) site visit interviews were recorded by the interviewers in handwriting on the interview guides. In many instances, respondents' (usually managers of the EISs) answers were copied verbatim, particularly in the case of unique or infrequently obtained answers. During training for the interviews and the first round of the site visits, the interviewers systematically debriefed their sessions with each other to compare results. For responses obtained with great frequency, short notations were used. Preliminary review of the data indicated that many of the interview questions had resulted in response distributions composed of diverse answers, a large proportion of which had been given by only one or two respondents of the 53 interviewed. Thus, a main goal for data reduction was to preserve the diversity and unique flavor of these responses and at the same time make the data amenable to computer analysis.

2 In preparing response coding categories for converting data to keypunched form, the total distribution of responses to each question was reviewed, and response categories for the question were developed, keeping the following objectives in mind: (1) to preserve unique wording and flavor wherever it seemed important; (2) to strive for efficient summarization of the more frequent, highly similar responses; and (3) to demonstrate high between-coder consistency for the categories developed for each question. After the coding categories had met the three objectives, data were coded from the original interview forms, punched and verified, entered into the computer, validated for allowable values by data-checking routines, and deposited in a machine-readable data base for analysis activities.

3 The data analysis program provided a standard display for the responses to most interview questions: The most frequently given response is shown first, with its frequency noted to its left; the next most frequent response is displayed second, and so on. For each question, the contents of the display consist of: the interview guide type (G, A, B, C, D); the

question number; the question; and the frequency-ranked response distribution produced for it. Numbered displays are contained in the Appendix, and the discussion refers to them by number.

4 A few of the displays are more complicated than the kind described above, in that they embody the linked results of more than one distribution of responses. Such special displays will be explained at the points where they are considered in the discussion.

ANALYSIS OF GUIDE SECTION I: GENERAL CHARACTERISTICS

5 Before discussing the results, there are three points which should be made about the interpretive framework and assumptions that can reasonably be imposed on the data. (These points apply to the discussion of all the data.) First, as described earlier, the sites chosen are a strategic sample, not a random or stratified-random sample. This means that the sites were chosen to provide at least one example of sites with as many different missions, operating conditions, locale factors, etc., as possible. The strategic sample aims to provide data for establishing boundaries and a framework from which to consider Education Information Services, but does not attempt to investigate particular hypotheses. Thus, the particular absolute values for frequencies of response obtained in this study are partly an artifact of the chosen sample, and cannot be strictly generalized to the universe of Education Information Services. From this point of view, statistical tests of significance of differences are not appropriate.

6 Second, because of limits to the level of effort that could be supported for this phase of the study, the number of sites studied is limited and the sample size for any particular type of site is usually very small. Thus, few apparent differences in comparative results could be expected to achieve statistical significance because of problems of small sample

size. From this point of view also, tests of statistical significance are inappropriate.

7 Finally, the above two points eliminate the possibility of using the data for systematic hypothesis testing (or even for strong hypothesis prioritizing), but they do not imply limits on the data's value for hypothesis generation or for delineation of a framework from which to conduct successfully rigorous hypothesis testing, where that would be useful. Perhaps most important is the fact that the size and composition of the sample do not prevent using the results for suggesting possible practical actions and for pointing to possible economical ways to check on the likely outcomes of such actions before they are taken.

8 Now, let us consider the data. Displays 1, 2, 3, and 4 depict response distributions to question 2 of the General Characteristics interview schedule. (*G2. Describe the general purpose or mission of the resource.*) Display 1 shows frequencies of responses oriented toward the information contents handled by the reporting site. About one-third of the total is "General Education Content," the remainder being more specialized, such as handicapped and special education, policy-making, planning, vocational-technical, administration and management, etc. Display 2 depicts service function-type responses to question G2. "Literature Search Service" and "Providing Materials" together constituted one-third of the responses, and "Packaging and Repackaging Information" and "Reference/Referral Service" together constituted one-fourth of them. About half the sites interviewed have "General Purpose" missions, and the remainder more specialized ones. Display 3 shows that about two-thirds of the sites serve all types of educational audiences. Display 4 shows that about one-third of the sample consisted of sites having a state-wide service area (span) and local institutional users (level), and another one-fourth involved sites having a nation-wide service area (span) and individual person users (level). The remaining sites are distributed among other combinations of span or service area and level of user.

9 Only two sites had nation-wide coverage and local institutional users, and there were no sites sampled with state-wide coverage and individual person users. The state/local and national/individual patterns appear to represent complementary functions which, taken together, account for a significant portion of the present servicing of education information needs. It would be interesting to speculate on what the different factors might be that facilitate development of nation-wide and region-wide delivery of services to individual users and which might focus state-wide services on local-level and larger institutional users.

10 Display 5 (*G5. Please indicate the one primary institutional base of your organization or of your particular unit.*) shows that "Private, Non-Profit Organization," "State Education Agency," and "University" contributed equally (12 each) to the sample, with "Private, For-Profit Organization" contributing in only two cases (these perform consulting service and clearinghouse functions). Display 6 (*G6a. From what source(s) is your resource funded?*) is the first of the more complex, linked-distribution displays. It provides sources with their frequencies of mention to the left; to the right of each source are the linked mechanisms of funding, with their frequencies to their left; and finally, the means of percentages attributed to each source-mechanisms funding combination are presented on the far right-hand side. The display shows a wide range of funding source-mechanisms combinations, with no single mode appearing to dominate the sample heavily. "Private Individuals providing Transaction Fees and/or Membership Dues" is the most frequently mentioned.

11 Of the 53 sites, 12 indicated that they received all (99 percent) of their funding from a single source-mechanisms combination, and 19 received all their funding from a single source. On the other hand, seven of the sites reported that they received 50 percent or less of their funding from a single source. The question arises, "Can we find hints of possible differences between the single-source and multi-source sites?" Responses of the two groups of sites were compared on the following questions:

*G6a. From what source(s)-mechanisms is your resource funded?*

*G7. Describe briefly your organization's primary activities.*

*G8a. How many full-time persons on your staff?*

*G9a. What areas would be most affected by increases or decreases in your budget?*

*G9b. Give approximate proportions of your current allocations of resources.*

*G9c. Do you see any changes in your present pattern of allocations for the future?*

12 There were few interpretable differences between the two groups on any of the above questions, but responses to the last two questions (Displays 7, 8 and 9) show an interesting possible trend. Scanning the displays suggests that single-source funding sites may have a more uniformly single-concept, business-production orientation. The impression is that they are more focused on the on-going, day-to-day concerns characteristic of a stablized enterprise. It is open to question as to whether this would, in fact, turn out to be a supportable generalization. If so, is it a concommitant of single-source funding, or multi-year stabilized funding patterns, or of other factors? As we shall see, the factor of stability for planning emerges again in the context of some later questions.

13 Display 10 (*G7. Please describe briefly your organization's primary activities, i.e., what kinds of materials do you have and/or what kinds of products or services do you provide?*) shows a total of 179 responses for 48 different items. This is an average of about three responses per item, and about three responses per site. The wide range of primary organizational activities mentioned indicates that a diverse sample of sites was, in fact, obtained. Of the 48 activities mentioned, 18 are mentioned only once each, and "manual and computer literature searching" together account for 30 mentions. Thus, it can be seen that providing intellectual access to bibliographic files represents a mainstream activity for more than half the sites. Nevertheless, an additional diversity

of activities appears to be required to round out the picture of Education Information Service activities, and there are, furthermore, obviously wide variations from site to site. Only one site mentioned "SDI" (Selective Dissemination of Information).

14 Display 11 (*G8a. How many persons are on your staff? How many full-time/part-time? What are their roles?*) depicts the frequencies with which various numbers of full-time and part-time staff were reported. The median values are seven full-time and 1.5 part-time staff. The mean values are 13.9 full-time and 4.9 part-time staff. The minimum reported staff was one, and the maximum was 78. Display 12 reveals a diversity of role names. The "Clerk-Typist-Secretary" and "Library Science SME (Subject Matter Expert)" roles together account for 37 of the total of 194 mentions (19 percent), with 20 roles being mentioned only once each. Thus, the work activity cluster represented by EISs, while focused on bibliographic service, is clearly not a single, relatively standardized pattern such as might be represented, for example, in the full manning chart for maintaining and operating a late-model, wide-bodied commercial jet aircraft. (That is, the manning charts for such aircraft, carefully and adaptively planned as they are, would show a much higher degree of standardization of personnel role and function across airlines than is the case for Education Information Services.) A corollary is that EISs almost certainly have a comparatively wider range of unique environments and circumstances to which they must be adaptively designed if they are to be efficient. This comparison is by way of highlighting the observation that to exercise effective EIS site management of the kind able to sense the balance of requirements and to design efficient activities and personnel skill mixes accordingly, calls for a wide command of relevant knowledge and skills.

15 With regard to the staffing issue raised above, Display 13 (*G8b. Do you feel that the size and experience of your staff are adequate for your current requirements?*) shows that, although almost half the respondents judged their staff's capabilities as not totally adequate, there was

little uniformity in the kinds of personnel types mentioned as being needed; essentially single mentions were made of each of a dozen personnel types. Again, Display 14 (*G8c. Are there any areas in which you feel you could improve the capabilities or effectiveness of your staff?*) indicates that while more than half the sample of respondents answered in the affirmative, only three items (On-Line Searching, Technical Training, Organizational Development) received more than three mentions each. Maintaining a match between staff capability patterns and requirements identified for the Education Information Service is clearly not a standardized activity.

16 The technical diversity evident in Education Information Services is further reflected by responses depicted in Display 15 (*G8d. Are you planning any new activities or services that will have impact on your personnel needs, in terms of either additional staff or additional skills or capabilities?*). More than half the respondents answered "Yes." The 38 items mentioned show the wide range of activities that come under the purview of EISs. Only eight items were mentioned more than once. About half the respondents felt that there were personnel available to meet the needs of their center (Display 16).

17 Returning for a moment to the question of adequacy of staff, can any pattern of answer differences be discerned between the group of sites reported as adequately staffed as against the group with reported staff inadequacies? Responses from those two groups of sites were compared on the following questions:

*G2.* *Describe the general purpose or mission of the resource.* (Contents, Service Function, Audience Type, Span/Level)

*G6a.* *From what source(s) is your resource funded?* (Source, Mechanism)

*G7.* *Describe briefly your organization's primary activities.*

*G8a.* *How many persons are on your staff? How many full-time/part-time? What are their roles?*

G8c. *Are there any areas in which you feel you could improve capabilities of your staff?*
(Topics, Functions)

G11a. *Do you have any plans to change your collections, products, services in any significant way in the future?*

G11b. *What kinds of considerations contributed to your plans for change?*

D21a. *Are you serving as many users as you now have the capacity to serve?*

18 These questions were selected as the most likely to elicit differences between sites judged to be adequately staffed and those judged to be inadequately staffed. However, there were no discernibly patterned differences between the responses of the two groups for any of the above questions. Why were there no apparent trends related to judged staffing adequacy? It may be that the line between the judged adequacy and inadequacy of staff is a very subjective one, or that the adequacy judgment may most characteristically be cued by specific perceived deficiencies rather than by any general conditions, or that both these factors, and others as well, may be operating to produce these results. In any case, it seems likely that the factors affecting these judgments are as complicated and diverse as any of the others with which the EIS manager must deal.

19 The topic of budgetary allocation philosophy and plans received attention in the interview. Display 17 answers the question *(G9a) What areas would be most affected by increases or decreases in your budget? That is, would budget changes most likely be applied to the area of staffing, acquisition, linkage, etc.? Or would you tend to spread the increases or decreases across all areas more or less evenly?*. Responses are subdivided into distributions linked to projected budgetary increases, to projected decreases, and to symmetrical responses depicting aspects to be altered with either an increase or a decrease in funding. Several possible trends may be noted in the results. The number of actions mentioned in association

with anticipated increases in budget is one-third larger than for anticipated decreases, and is twice as large as the number of actions associated with both increase and decrease. It appears that planning for budgetary expansion may be more conducive to a flow of management ideation than is planning for budgetary contraction.

20 "Increasing staff size" and "increasing services" were mentioned with about equal frequency as the most likely responses to budgetary increase. In the face of budgetary reductions, "cutting back on services" and "reduction of available materials" appear to be slightly more likely than "cutting back on staff." The concept of conserving and augmenting staff as the major budgetary-related trade-off tactic was stated explicitly by six respondents, as indicated by the most frequent item for the increase/decrease distribution.

21 On the other hand, tactics aimed at stimulating demand for services, such as increased marketing promotion and needs assessment studies, were mentioned by only six respondents. This result was obtained even though, as shown in Display 18, 31 respondents answered "No" to the question (*D21a. Are you serving as many users as you now have the capacity to serve?*). Is stimulation of additional demand really being ignored in the presence of unused capacity? This seeming contradiction may be because the manager-respondents judge capacity as the potential usefulness of the available information to those persons within the service area who have not made use of it, or as the ability of the physical plant or the management to sustain a larger operation. However, there may be a strongly perceived tie between staff size and maximum ongoing volume of service that can be delivered to consumers, and for that reason, many managers may perceive staff augmentation to be of higher priority than stimulation of additional demand. Is this because staff is the most flexible, "General Purpose" resource?

22 As would be expected, in Display 19 (*G9b. Can you give the approximate proportions of your current allocations of resources? What percentage is spent on collection maintenance, how much on development of services, how much on staff, and so on?*) staff salaries was the item about which managers most frequently felt comfortable giving extemporaneous estimates, followed, interestingly enough, by computer time. Staff salaries were reported as accounting for an average of about 70 percent of the budget, with computer time and acquisitions each averaging about 20 percent, and other items averaging less. Advertising, promotion, and marketing received only three mentions out of a total of 133, but for those three the proportion averaged 20 percent. Promotional approaches to stimulation of demand are apparently not a major feature in the thinking of most of the EIS managers.

23 In another example, of the 13 out of 53 respondents who answered "Yes" on Display 20 (*G9c. Do you see any changes in your present pattern of allocations for the future?*), only two mentioned increases for promotion or marketing. At the same time, 48 of the 53 respondents answered "Yes" on Display 21 (*G10. Would you consider your resource's future over the next several years to be a stable one, in terms of continuing to exist as a recognizable entity, having essentially the same objectives and characteristics?*). EISs are optimistic or determined about survival, but stimulation of additional user demand through marketing, advertising, and promotional approaches is clearly not seen as of high budgeting importance to the continued well-being of most of them.

24 Separate from budgetary issues, promotional activities as such do not appear to loom large in respondent concerns. Display 22 (*G11a. Do you have any plans to change your collection, products, or services in any significant way in the future?*) shows no direct mention of promotional activities, although possible demand-inducing activities such as "Expand Dissemination Activities," "Expand Linking Activities," "Improve Teacher Involvement,"

and "Improve Newsletter" together do account for 10 of the 30 mentions obtained. On the other hand, respondents show relatively pervasive sensitivity to user needs, as indicated in the results of Display 23 (*G11b. What kinds of considerations contributed to your plans for change?*). Approximately half of the respondents answered this question; "User Market Demands," "Improvement of Service," "Leads from Field," "Aim to Reach More Users," "Personalized User Contact," "User Needs for Referral Service," and "Aim to Increase Teacher Involvement" together accounted for half of the responses.

25 Related to this strong concern for users are the responses to the question in Display 24 (*G19. In general, how well do you think people involved in education are being served in terms of their information needs?*). Sixteen respondents answered "Poorly, Bad, or Minimally"; 25 answered "Spotty, Mixed, Not Very Well, No Generalization, or Can't Answer"; six answered "Passably Well"; and only six seemed satisfied answering "Quite Well or Very Well." The leaders of the EISs are clearly oriented toward supplying service to users and are very concerned about its effectiveness. However, there is much less consensus about specific ways to achieve that effectiveness, probably because of the variety of situations in which planners find themselves.

26 Even so, there is considerable agreement that the single most important part of the problem is the users and potential users themselves, as can be seen in Display 25, which shows the results of probing for elaborations on the responses to the question in Display 24. Reading down Display 25, the first, second, third, fourth, sixth, eighth, 11th, 12th, 13th, and 18th items all depict aspects of, or causes of, inadequate user response to the information system. Together these items account for 62 of the 97 responses obtained! While a range of other factors are cited that can contribute to poor education information utilization, the main impact of Display 25 is clear: Contacting and motivating the potential education information user is viewed as a major problem.

27 What factors are perceived as affecting plans for improving education information utilization? One aspect of the answer is provided by Display 26 (*G11c. What kinds of contraints, e.g., organizational, political, must you accomodate in your plans?*). Forty-three of the 53 respondents answered; of their 60 responses, "Financial," "Staff," and "Physical Space" limits accounted for 25 mentions. Ten respondents felt there were no constraints or limitations imposed on them, and 17 cited controlling elements such as "Government Defined Scope," "Board of Directors," "Commission," and "Council." Constraints did not appear to contribute to a sense of instability.

28 An entirely different aspect of the answer to the question raised at the beginning of the previous paragraph is provided by Display 27 (*G12. What outside factors are likely to have an impact on your role in providing education information in the future?*). Compared with the question on constraints to planning, this question generated four times as many specific kinds of answers, and almost half again as many responses. Each response item in Display 27 is followed by a letter: "P" (for "Positive), "M" (for "Mixed"), or "N" (for "Negative"). These designations refer to the item's implications for a manager's ability to control the fate of the EIS, as perceived by him. For positive and negative items, the designations are based either on the explicit contents of the response or on accompanying remarks made in the context of the interview. Items designated as "Mixed" were either reported as such by respondents, or were indeterminate in the context of the recorded data.

29 Fifty of the 53 respondents answered the question with substantive responses, of which there were 86. The 11 positive-implication responses included such items as "General Trends in the Information Science Field," "Innovations in Education Information Usage," "Change in Educational Media," "Lobbying and Parent Advocate Groups," "Increase in Survey Research Wor," "Market Research Results," and so on. The 10 mixed-implication

responses included such items as "More Emphasis on Management, Governance," "User Response and Receptivity," "New Form of Post-Secondary Education," and "Change in Primary Literature."

30 There were 65 negative-implication responses. The most frequent responses included "Federal Education Information Funding Policies," "State Political Considerations," "Economically Depressed National Situation," and "Competitive Peer Cooperation Dilemma." Responses ranged intermediately through "Competitive Replacement by Larger, State-Level Units," and "Competitive Evaluation Results from Federal Agencies," down through single-mention items such as "Cost Increase for Postage and Telephone," "Collapse of ERIC system," "Freedom and Protection of Information Legislation," "Top-Down Pressures to Hire the Unqualified," and "Superintendent of Public Instruction Being an Elected Official Whose Attitude Is Crucial."

31 Since the word "impact" in the question is neutral, the six-to-one preponderance of negative- over positive-implication responses seems especially striking. Granted that provident managers in most enterprises have weather-eyes on contingent embarassing or disastrous possibilities, one can still suggest that the managers of EISs may feel more embattled than do the managers of many other enterprises. There is the impression that, for many of them, the future of their resource centers appears to be laden with pitfalls over which they can exercise little or no control through diligent and careful planning. To the extent that this impression of their views proves to be accurate, several questions can be raised: What effect would such a view have on the ability to sustain enthusiastic, creative, innovative, long-range planning? What are the conditions that contribute to the development of this viewpoint? What might be done to alleviate such conditions?

32 At this point, it is useful to summarize the main interpretations explicated so far. As a group, the managers of EISs must grasp and deal effectively with a wide and complicated body of technical considerations, options, and

ambiguities if they aspire to increase the success of their operations. Many feel more than noticeably dissatisfied with the current level of education information delivery and utilization in the United States. They see a large part of the problem as that of somehow overcoming the all-too-frequent resistance and lack of interest they attribute to the end user of the information they wish to purvey. At the same time, many of the managers judge that the effectiveness, if not the viability, of their operations and organizations is continuously vulnerable to a range of factors which are mostly outside their direct control. Many appear as cautiously embattled folk, who must try to please everyone, offend no one, maintain a medium-low but noticeable profile, and look to the future with creative imagination--all with careful attention to minimizing expenditure of resources. In such circumstances, to whom or what can they turn? Among others, three possibilities are: to new technology; to each other; and to identification of specific problems and issues. The interview guide touched on each of these avenues.

33 Regarding new technology, similar results were obtained for both Display 28 (*G13. Do you know of any technological innovations that might be expected to impact on your activities over the next 5 to 10 years? e.g., on-line retrival, mass storage.*) and Display 29 (*G14. Do you know of any technological innovations that might be expected to impact on education information as seen by the end users? e.g., two-way cable television.*). In each response distribution about 30 items are mentioned, and "On-Line Information Retrieval" and "On-Line Networks" received the most mention in both, accounting for 25 to 30 percent of the substantive responses. The remainder of the items averaged about 1.75 responses each. The high consensus items, as just indicated, have to do with on-line network applications for bibliographic access. This response pattern is perhaps predictable, first because on-line bibliographic access network applications have been growing by leaps and bounds for the past three years, and second because providing bibliographic access is the core activity for many of the sites. (As an aside, it is worth noting that

while there is indeed sufficient evidence from many sources to indicate that the advent of on-line bibliographic access has a stimulative effect on bibliographic search system utilization, bibliographic access is clearly only one important part of the total task of achieving highly effective education information transmission and utilization. EIS managers are well aware of this fact.)

34 The impression obtained from the interviews and from the response distributions just cited is that most EIS managers do not anticipate that there will be new technological miracles to solve the bulk of their problems. While technology is viewed as an assortment of variably useful tools, four related points are worth making: (1) The rate and course of the development of technological gear into practical, cost effective applications is only rarely seen as being under their individual influence in even the smallest way; (2) even given cost effective gear, the preparations for "arming" the application with specifically effective educational content is often viewed as beyond the technical and financial resources, both existent and planned, of the individual center; (3) the risks of making costly and highly visible mistakes, although unknown, appear high enough to many to keep most potential "new technology" projects at the planning stage indefinitely; and (4) the application of some technology items (e.g., video-taped master teachers on closed-circuit TV networks) may even be perceived as threatening to some EIS users, upon whose good graces the services must depend. The questions on new technology were only two of many questions administered during the interview and could be treated only briefly; therefore, the above points should be viewed as hypotheses requiring further validation, and as points of departure for thinking about possible ways to help EISs use new technology applications to improve education information transmission and utilization.

35 Suppose that another possible source of useful information, comparisons, problem-solving aid, and standards for an EIS might be other EISs of the

same or similar type. What are the main characteristics EIS managers use to judge the similarity of other sites to their own? Display 30 (*G15. How many other information resources are there in the United States that are similar to yours? In other countries?*) shows distributions of response to both parts of this question. As might be expected, about two-thirds of the respondents had no firm idea about the number of similar sites in other countries, but only three provided no answer when asked about the number of similar U. S. sites. For U. S. sites, the largest single response category was "No Similar Sites," followed by "One Similar Site," and then "Two Similar Sites" (these together accounting for half the responses). Seven of the 53 respondents judged there to be as many as 30 or more other sites similar to theirs within the U. S. Thus, it appears that many sites are perceived by their managers as unique.

36 To the question in Display 31 (*G15. How are they similar?*) there was a range of responses. The most frequent comparison among the 66 responses was by type-names (with 20 responses), followed by technical functions (with 16). These 36 responses appear much alike, in that type-names usually imply a certain range of technical functions; therefore, it seems accurate to say that slightly more than half the comparisons were made on the basis of similarity in technical functions. Fourteen respondents mentioned "service area similarities," nine mentioned "file contents," four "funding mechanisms," and three the type of "audience." While it is clear from earlier questions that EIS managers are highly user- and audience-oriented in terms of plans for their centers, the type of audience being served does not appear to figure largely in their views of the important similarities and differences between EISs. One possible explanation for this is that functional specialization of EISs is not viewed as being so much related to specialization of audiences as it is to provision of specialized services to self-selected sets of individuals within audiences that are relatively uniformly generalizable across the entire country.

Another possibility is that audience specialization and service specialization are both seen as implicit in the technical function and type-name descriptions.

37 As far as communication with other organizations is concerned, Display 32 (*G16a. What types of organizations in education information do you communicate with? What is the nature of the communication? e.g., informal meetings, regularly scheduled meetings, letters, telephone calls, etc.*) shows an average of three types of organizations named per site. Of the 149 mentions, 87 (almost 60 percent) were nation-wide, federal, state-wide, or regional in nature. "Clearinghouses," "education information centers," and "libraries" accounted for about 17 percent, and "colleges," "schools," and "LEAs" for about nine percent. "Meetings," "telephone calls," and "mail" accounted for 79 of the 89 responses regarding types of communications; and "Information Sharing," "Coordination," "Planning," "Marketing," and "Information Seeking" accounted for 52 of the 77 responses regarding the purposes of the communications. This display suggests that for information gathering and planning, inter-organizational communication between EISs is the exception rather than the rule. Such inter-organizational communications activity is apparently "upwards" rather than "laterally" directed; is not done in the context of supplying immediate service to specific users; and is of a more programmatic, interactive, "gestalt" variety, rather than of an easily defined, specific kind using discrete units of factual information divorced from interpretation.

38 That much of the upwards-oriented, inter-organizational communication is for information gathering and preparatory purposes is further attested to by the contrasting results in Display 33 (*G16b. Do you try to plan and/or coordinate with any of these organizations to improve information in education?*). Twenty-nine of the 53 respondents answered "Yes," but the organizations most frequently mentioned for this question (in distinction to the previous one) are "Local Education Agencies," "ERIC and

ERIC Clearinghouses," and "Local Schools." The purposes most often mentioned are "Coordination of Product Development," "Service to Users and User Training," and "Avoiding Duplication of Effort," which would appear to be activities more directly connected with immediate service to specific users. The differences for Displays 32 and 33 are not sharp, but they are discernible. They suggest, as one might anticipate, that quests for ideas, currency, new approaches, etc., may frequently be directed upward, or be wide-range, while quests for support in direct service action may more often be directed laterally and less diffusely.

39 The idea of increasing efficiency through avoidance of duplicative efforts is a familiar one. However, to the question in Display 34 (*G17a. Can you think of any areas of coverage in education information where there is an overlap or a duplication of effort?*), there is very little consensus. There was an average of slightly over one substantive response per site, with 13 of the sites providing no answer. As far as the interviewers were aware, only one site reported duplicative efforts involving any of its own activities. The impression is that, as a group, the EIS managers do not view elimination of any one particular kind of duplicative effort as an area in which major gains in total system cost effectiveness could be achieved.

40 Indeed, the concepts of duplicative effort, coordination, cooperation, and competition define the dimensions of an arena in which EIS managers display a proliferation of ideas about possible specific implementations, as well as a rather high degree of consensus about the possibilities for cooperation. Display 35 (*G18a. What type of cooperation would you recommend to alleviate or avoid overlaps and gaps in coverage, as well as to improve the provision of education information?*) shows that of one hundred responses, only 13 were not positive toward the idea of cooperation (which was the idea strongly endorsed by the form of the question). Of these, nine were non-responses, and four expressed the counter-opinion

that overlap was "okay" and that competition should rule. Thus, of 44 site managers who expressed an opinion, 40 accepted the cooperative framework assumed in the question.

41 The 40 who acceded to cooperation generated 87 suggestions among them. Besides the specific forms of cooperation and coordination they suggested, there are two relatively high-frequency themes: (1) better coordination of effort through improvement of communications between elements of the national Education Information Services complex, and (2) increased incentives for cooperation and non-competitive stances, including mentions of increased organizational power to force cooperation. These two themes are stated not only explicitly in the two most frequent responses, but are implicit in many others. On this count, EIS managers certainly cannot be accused of parochialism or of local rationality. To the question in Display 36 (*G18b. At what levels should this cooperation be coordinated?*), "Private Companies," "Institutions," "Grass Roots," and "Local--District" together received seven mentions; "Regional," "District--State," and "Agencies Not Federal" together received 12; "National, Federal," "States--National," "High, Macro," and "ERIC Clearinghouses" together received 34; and "All" levels received six. The respondents have a majority consensus: Cooperative system rationalization, encouraged and stimulated from the national and state levels, is important.

42 Two other questions were posed that help to round out the picture for this portion of the analysis. In the results for Display 37 (*G17b. Can you think of any areas where the coverage of education information is not adequate?*), eight response items relating to "statistics" account for 17 mentions among the total of 87 (19 percent). The remainder of the response distribution is composed of a range of lower-frequency items which, taken together, provides an impressive array of education-related content areas for which involved professionals believe improved coverage is warranted. The other question was aimed at general themes for the strategy

of improvement. Display 38 (*G20. What ideas or thoughts do you have about ways to provide people in the field of education with more timely, accessible, and relevant information?)* provides especially interesting results in light of some of the points brought out earlier in the discussion. Despite the fact that the question is slanted toward provision of "timely, accessible, and relevant information," the two highest-frequency responses are aimed at contacting and motivating potential users to utilize information ("Linkage, Intermediation" had 19 mentions, "Users" had 13). The EIS managers' responses are consistent from one part of the interview to another; earlier, contacting and motivating users was seen as the biggest problem, and here the respondents are suggesting ways to solve these problems to obtain better information service. Again, this reinforces what appears to be a reliable consensual trend.

43 Responses to the final item for this section of the analysis (almost as if to counter any idea of oversimplification of the problems of improving the United States Education Information Services complex that might have arisen from the previous discussion) are shown in Display 39 (*G21. What do you consider to be the major types of education information resources?*). The "ERIC" system received most frequent mention, followed by "Word-of-Mouth Sharing," then "Journals," "Personal Experiences," "Libraries," and "Books, Texts." Beyond this are 48 other items which are mentioned, in composite, a total of 102 times. Each item, when considered, appears to bear its own validity, as well it might in a pluralistic, open education system.

44 The outlines of a conceptual fabric for the U. S. Education Information Services complex begin to emerge: There are common themes, on which there is fair consensus, which appear embedded in a tapestry of diverse elements, each with its very real importance. The system themes have little separate existence, except as they take their importance from the

facilitative connections they have to the elemental minutiae which do have separate validities in and of their own right. How can such a picture help to improve planning for the future? In what sense, if any, might someone speak soberly about tradeoff analyses aimed at allocating resources and aid between various part-functions in such a complex?

## ANALYSIS OF GUIDE SECTION II: COLLECTION CHARACTERISTICS

45 Up to this point, a few important trends and a considerable number of part-functions depict the reported nature of the Education Information Services. Major trends and part-functions represent somewhat opposite poles in the characterization of EISs; it would be useful to have a "middle ground" of characteristics, such as size, user area span, level, developmental age, and so on, some of which might have potential for distinguishing between different types of EISs. In the present usage, the concept of types implies a line of demarcation, the functioning of EISs on each side of which is regularly and palpably different for important and understandable reasons. Given that definition of type, the dimension with the most ad hoc promise for generating useful distinctions between types appeared to be the one having to do with the nature of the items in the collection used to support the EIS. On this dimension, three types of collections were easily distinguishable: (1) collections of printed materials (Print collections); (2) collections of other than printed materials (Non-Print collections); and (3) collections consisting of magnetically stored records (Machine-Readable data bases). It was hypothesized that some of the functional characteristics and requirements of EISs would vary systematically, depending upon the type of collection.

46 Admittedly, many important factors such as information contents, service functions, and audience characteristics would be expected to be only marginally dependent upon collection type; but collections corresponding to each of the above three types are readily apparent, and preliminary observations did suggest some differences in functioning. Therefore, the second section of the interview guide was designed to find out specifically about collections, and was produced in three versions: (A) Print Collections; (B) Non-Print Collections; and (C) Machine-Readable Files. Criteria for administering sections were described on page 8 under sample selection. One site received A, B, and C versions; two sites received B and C versions;

three received A and B versions; five received A and C; 29 received A only, three B only, and one C only. Thirty-seven sites included A, nine included B, and 17 included C versions.

47 The three versions of the collection description section of the interview guide consisted mostly of identical or nearly identical questions, phrased and sequenced appropriately for the particular interview type. Comparisons between versions can therefore be made between answer distributions from corresponding questions. Also, all sites were administered the first (general description of resource) and third (linking and service factors) sections of the guide. Response distributions for selected questions from these sections will be compared between A-only, B-only, and C-only sites. Results will be discussed question-by-question on a comparative basis, and for each comparison a triplet of displays will be cited.

48 Displays 40A, 40B, and 40C (*Which of the formats for information in List A best characterize(s) your collection?*), as might be expected, show almost no overlap in contents. "Compilations," "Journals," "Books," "Directories," and "Pamphlets" received most mention for Print collections. Responses were about equally distributed between "Audiovisuals," "Audiorecordings," "Silent Visuals," "Models and Manipulanda," and "Games and Simulations" for the Non-Print collections. "Bibliographic Citations" accounted for over half the responses for Machine-Readable files, with "Statistical Data" second. The forms of information in the three types of collections were radically different. Displays 41A and 41C (*What time period is represented in the file or collection?*) depict Print collection and Machine-Readable files responses respectively. (Many of the items in Non-Print collections are not dated, so the question was not asked for the B group.) Six to seven years was the average maximum age for items in Print and Machine-Readable collections.

49 Displays 42A, 40B, and 42C (*What is the size of collection or number of records in the file?*) show some expected differences. For Print collections (Display 42A), nine of the respondents estimated file size exclusive of ERIC collections, which they also maintained; two of the collections over 100k were exclusively ERIC. Excluding ERIC collections from the calculations, the mean size is approximately 18k and the median is approximately 14k. For Non-Print collections (Display 40B), size-of-file data were gathered separately for each of the major formats. Size data by format category are provided on the right-hand side. The display indicates that of the nine respondents reporting Non-Print collections, one provided no size estimate, one estimated total collection size at 100-500 items, another at 9,000 total items, and the remaining six respondents provided size estimates by category of format. All six reporting by category mentioned "Audiovisuals" for an average of 2.5k items per site. Four reported "Audio Recordings" with an average of .69k items per site. Three reported "Silent Visuals" with a per-site average of 1.45k; three reported "Models and Manipulanda" with a per-site average of .25k; three reported "Games and Simulations" with approximately 50, 2k, and 25k items in the collections; and one reported "Displays and Exhibits" with about 50 items. The mean size for Machine-Readable files, excluding ERIC files, was approximately 125k. Thus, Non-Print collections were the smallest, Print collections averaged about three times the size of Non-Print, and Machine-Readable files averaged about eight times the size of Print files.

50 Displays 43A, 43B, and 43C provide estimates on growth rates for the three kinds of collections. All of the nine Non-Print respondents gave quantitative estimates; about four-fifths of the 37 Print collections respondents gave quantitative responses; and only about half of the Machine-Readable files respondents gave quantitative, confident estimates. This possible "uncertainty factor" may well be accidental, but it is interesting to note that the comparative proportion of non-quantitative reports is directly related to average sizes reported for the associated collections. One

possible contributing factor might be that, for Machine-Readable files, the growth rate as a fraction of absolute size may be less directly apparent than for physical files. Another factor would be that Machine-Readable file growth might have less perceived direct impact on management factors (such as planning for space expansions or maintenance costs) than physical collection growth. It might be that the technical details of machine-based systems simply seemed comparatively more obscure to a significant proportion of the current generation of EIS managers.

51 Displays 44A, 44B, and 44C depict answers to the question *Which of the functions in List B best characterize(s) the intended purpose(s) for which the collection or file is used?*. As usual, the frequencies of response are provided down the left margin of the displays; but since the sizes of the three respondent groups are 37, 9, and 17 respectively for Print, Non-Print, and Machine-Readable, the frequencies have also been converted to percentages of possible response, for ease of interpretation. The functions of "Research Findings" and "Explanations and Descriptions" carry the two top ranks for Print collections, but occupy the ninth and 11th ranks for Non-Print collections, and do not even appear on the Machine-Readable files display. "Classroom Instruction," which ranks highest for Non-Print collections, does not appear on either of the other displays. "Ready Reference" does not appear on the Non-Print collection display, but ranks third for Machine-Readable files and fourth for Print collections. Clearly, the three types of collections serve markedly different patterns of functions.

52 In addition, the functions for Print and Non-Print collections were reported as somewhat more numerous and ubiquitous than for the Machine-Readable files. The Print collection respondents mentioned 16 functions, with an average possible response of 46 percent; Non-Print functions numbered 15 with an average of 49 percent of possible responses; and Machine-Readable functions numbered nine, with an average of 28 percent of possible

responses. This "thinner" distribution of functions for Machine-Readable files implies nothing about the comparative utility or cost effectiveness of the three kinds of collections. One possible explanation for the thinness is that Machine-Readable files are comparatively newer developmentally than the other two forms of collections, and thus may have enjoyed a smaller total mass of "time-over-diversified-experience-in-applications" than the other two.

53 Displays 45A, 45B, and 45C give responses to the question *Do you have a subject focus? If so, which subject do you emphasize or focus on?*. As would be expected, Print collections showed the broadest range of topical coverage, Machine-Readable files next, and Non-Print collections the narrowest range. Among the 43 responses for the Print collections, 42 percent reported no special subject focus; only about two percent of the responses for Machine-Readable files reported no special subject focus. A number of factors (other than the accidents of sampling) may contribute to this pattern. For one, identification of subject area specializations within education information has continued to proliferate over the years, and the starting dates for Machine-Readable files have a later average than Print collections have, thus increasing the opportunities for initial subject specialization in Machine-Readable files. For another, the intellectual access design problem (indexing, classification, cataloging) for Machine-Readable files are, because of the interposition of the computer between the data and human being, more severe than for Print and Non-Print collections. This factor is exacerbated by the larger planned sizes for Machine-Readable files due to their special role in providing access and retrieval. As is well known, the problem of designing and maintaining proper intellectual access is ameliorated by limiting the file's scope of topical coverage for each index partition.

54 Displays 46A and 46B depict responses from Print and Non-Print collections to the question *For what subjects, types of information, or materials do you tend to have requests that you cannot fill?*. (The equivalent question was

cmitted from the Machine-Readable version of the guide because of competition for interview time from other questions deemed more important for that type of application.) The responses to the Non-Print version appeared to provide little useful information; only three of the nine respondents made substantive responses. For Print collections, there was a wide range of subjects for which unfilled requests were reported, but very little consensus, except for the slight tendency shown in the most frequent mention of "Local School Data." Displays 47A and 47B answer the question *How do you handle requests unfillable from your own collection?* for Print and Non-Print collections. Again, Non-Print responses yielded little useful results. Print collection substantive responses totaled 39, of which 34 mentioned referral. Of these, there were 11 types of places to which referrals were made, with "ERIC" being the most frequent and "Dissertation Abstracts" and "Regional Labs" being least frequent. The paucity of reported interlibrary loans (one mention) as compared with referral actions may be an accident of sampling, but more likely it reflects the possibility that maintaining reliable interlibrary loan services leaves the EIS with extra efforts, rather than devolving them back to the user, as is more often the case with referral actions. More EIS resources would be needed to maintain an interlibrary loan policy than to maintain a referral policy.

55 Displays 48A, 48B, and 48C give responses for the question *How are data and materials identified and acquired for your collection or files?*. "User needs, requests, suggestions" ranked second for Print collections, fifth for Non-Print collections, and first for Machine-Readable files. "Automatically received" and "ERIC" rank first for Print collections and second for Machine-Readable files, but neither is mentioned for Non-Print collections, which rank "Advisory Groups," "Review Boards," and "Catalogs" higher. The results do not depict any strongly apparent differences between the three types of collections with respect to acquisition policies and mechanisms. Scanning the three patterns of response, however, one can speculate

that Print collections may possibly have the most numerous, well-established, and well-identified acquisition sources, with Machine-Readable files the next most, and Non-Print collections the least; but the data are not definitive. If the hypothesis is true, the implications for practical aid to the three types of collection activities could bear closer examination.

56 Displays 49A, 49B, and 49C depict the criteria reported as being applied to the screening and selection of inputs to collections. In comparing the three response distributions, the most apparent difference is: While for Print collections screening appears to be a highly developed and differentiated activity growing out of a major concern, for Non-Print collections it may be somewhat less variegated and formally developed. For Machine-Readable files, 12 of the 21 responses were non-substantive, and the impression is that a significant proportion of content and quality screening is done before material is received for Machine-Readable files. Since data accuracy is crucial to machine operations, an additional question was put to respondents reporting on Machine-Readable files: *What controls are employed to assure accuracy of data?* Display 50C provides the results, which show that of the 23 responses, 12 of them were either non-substantive or else indicated that data accuracy was also determined elsewhere.

57 In a similar vein to the above, Print collections appeared to be more concerned with weeding or purging the collection than were the other two types of collections. Displays 51A, 51B, and 51C provide answers to the question *Do you weed materials or delete records periodically?*. "No" or "Not Applicable" responses comprised 38 percent for Print collections, 66 percent for Non-Print collections, and 59 percent for Machine-Readable files. For the Print collection respondents only, Display 52A depicts the weeding criteria mentioned, and Display 53A depicts the disposition of the discarded materials. For Machine-Readable files only, Display 54C answers the question *What descriptive documentation exists for this file?*. Two-thirds of the respondents report a "User Manual," and one-third report such items as

"Pamphlets," "Code Book," "Data Dictionary," "Guide to Services," and "Thesaurus." One reported a "Slide and Tape Show." For Machine-Readable files only, Display 55C answers the question *What is the output mode of the file?*. About two-thirds of the respondents reported line-printer output, and two-thirds reported on-line terminal output.

58 Displays 56A, 56B, and 56C answer the question *What kinds of groups do you consider to be your primary target audience?*. Display 56A shows group-name mention frequencies, and for each group a distribution of frequencies with which various percentages of total user group were estimated, plus an average of percentage estimates. Because of the small sample size and the selection method for the sample, the percentage values and averages need to be interpreted cautiously. "Elementary and Secondary School Practitioners" and "School District Staff" are reported as the heaviest users of Print collections. Display 56B shows group-name mentions for Non-Print collections, and frequencies with which various numbers of users were estimated for those names. Again, "Elementary and Secondary School Practitioners" were reported as the main audience. Display 56C shows frequencies of group-name mentions for Machine-Readable files, but no percentages of total users or numbers of users were obtained for this group because of interview time pressures and because ultimate users of Machine-Readable files are less easy to identify than those for the other two types of collections. For this display, the impression is that higher education and SEA audiences make comparatively more use of Machine-Readable files, probably because of the relatively high fixed costs for terminal rentals.
For Print and Non-Print collections only, Displays 57A and 57B answer the question *Do you have many other users in groups that are not considered to be in your target audience?*. For both types of collections the results indicate that, besides the main or modal targeted user groups, a scattering of a wide variety of other types of users finds the collections useful.

59 Displays 58A, 58B, and 58C provide tallies for the question *What is the geographic area where your primary target audience is located?*. There are no starkly apparent differences between the rankings of responses in the three distributions, all showing "State," "National," "Regional," and "Local" areas. Worth noting is the fact that six of the 37 Print collection respondents indicated that an "International" area contains their primary target audience, and two of the 17 Machine-Readable files respondents gave the same response. For Print and Non-Print collections only, Displays 59A and 59B answer the question *(If narrower than national) What influence, if any, does your geographic location have on the nature or scope of your resource?*. Both distributions mention "Distances across the service area" most frequently, indicating limits to scope of services (in a geographic sense). The distributions also show that collections are initiated and planned with a range of unique local factors in mind that can have a bearing on the details of collection makeup.

60 Displays 60A, 60B, and 60C answer the question *In your opinion, how useful do your target users consider your collection or file?*. For all three distributions, almost the entirety of substantive responses indicated very positive user evaluations. In light of these answers, the question *What could you do to make your collection more useful to your target users?* (Displays 61A, 61B, and 61C) provides some interesting results. For Print files, "Linkage and Intermediary Activities" and "Services" categories together accounted for 23 of the 47 substantive responses (49 percent). For Non-Print files, "Improve Communications," "More Training in Use of Materials," "More User Control of Product," and "Take Materials Out to Schools" accounted for five of the 11 substantive responses (45 percent). Clearly, for both Print and Non-Print collections, the general factor of outreach to the audience is perceived as the main ingredient that is in comparative undersupply. On the other hand, a rather startling result is portrayed by Display 61C. There was not a single substantive response for the 17 Machine-Readable respondents (as compared to 47 for Print and 11 for Non-Print).

Possible reasons for this seeming lack of ideas on the part of managers of Machine-Readable files will be reserved for discussion in the context of upcoming results which appear to provide some illumination of factors involved.

61 To the question *How do you find out what your clientele wants?*, Displays 62A, 62B, and 62C show "No Answer, Can't Answer" percentage values of zero percent, seven percent, and 33 percent respectively, for Print, Non-Print, and Machine-Readable collections. In the same vein, "Request Patterns," "SDI Profile Development for User," "Spontaneous User Feedback," accounted for 22 of the 63 substantive responses (35 percent) for Print collections. "Request Patterns" and "Spontaneous User Feedback" accounted for 38 percent of the substantive responses for Non-Print collections, and "User-Request Log" accounted for eight percent of substantive responses for Machine-Readable files. The remaining response categories in all three distributions were taken up with "studies," "evaluations," "advisory groups," etc. Machine-Readable files managers report noticeably less frequent contact, and less personal contact, with their user groups. It seems possible that one of the reasons for the comparative lack of ideas about how to improve file usefulness to their users may be that, for Machine-Readable services, personnel responsible for planning the contents of the files are usually isolated from the query negotiation process, which is more often conducted by the user or his field technical representative.

62 The detailed, immediate, specific information that is yielded by direct contact with query-negotiation process is probably the most important single source of information about the specific needs of users. This is further suggested by responses to the question *How do you determine whether or not your clientele are satisfied?*. Displays 63A, 63B, and 63C provide results that are essentially equivalent for all three types of collections; they use a range of formal feedback and follow-up procedures, and as already indicated, such studies show that everybody's collections are highly

useful to users. However, while Print and Non-Print collection respondents, who mostly have the benefit of direct contact with the query-negotiation process, do have ideas for improvement of their collections, Machine-Readable files respondents, who usually do not have such benefits (especially in on-line systems), appear short on such ideas. Direct contact with the query-negotiation process is, of course, usually "automatic" for Print and Non-Print collections, but much less so for Machine-Readable files. Information about the specific user's specific needs is usually "undeniable" to operators of Print and Non-Print files, but requires special arrangements to be obtained for on-line Machine-Readable files. Such arrangements include programming of user-file interaction monitoring, storage, and analysis routines, plus obtaining the user's permission to "listen in." Capabilities of this kind are available and sometimes used on some large science and technical information on-line service files on nation-wide networks.

63 Regardless of whether information about user needs is obtained by direct contact or by less direct, time-delayed, formal means (such as user needs surveys after the fact), there remains the question of what use is made of such information. To the question *How have you made use of what you found out?*, Displays 64A, 64B, and 64C show that "No Answer" and "Don't Do" responses constituted the most frequent answers, with 20 percent, 25 percent, and 58 percent respectively for Print, Non-Print, and Machine-Readable collections. The uses made of user-needs information comprised specifics across a wide range, each apparently appropriate to the particular type of collection. However, it is obviously not always easy to turn information about user needs into actions for improving the collection or service. Correction and modification of various technical details comprised the bulk of the responses. The improvement of linkage and outreach activities received scant mention, however, even though results discussed earlier indicated that a majority of respondents perceived that increasing outreach activities would be a main avenue for achieving increased utilization of their collections.

64 Of course, increasing the level of outreach activities would be aimed more at seeking new users than at correcting deficiencies noted by present users. To the questions *Have you made any special attempts to reach non-users? If so, how and with what results?*, Displays 65A, 65B, and 65C show that respondents from all three types of collections reported a variety of channels being used for such attempts; but there was virtually no mention made of results of such actions. It goes almost without saying that just as increased outreach activities require more financial and technical resources, valid and factual evaluation of the effects of such activities also requires more financial and technical resources. In most cases, it does not appear that there are sufficient resources available to do both jobs well, and the choice between the two is obvious. An imaginatively planned, well-intentioned "shot in the dark" probably is viewed as better than dividing the too-small available effort between outreach activities and an evaluation of their effects.

65 Whether the manager of an EIS is correcting user-perceived deficiencies in collection or services, or is reaching out to involve new users, he needs information about users and potential users. To the question *What kinds of information about users would be useful to you?*, Displays 66A, 66B, and 66C show that the kinds of information desired range over a variety of specific types. Print collection respondents mentioned an average of 1.6 types of needs each, Non-Print respondents an average of one type of need each, and Machine-Readable respondents an average of 1.4 types of needs each. EIS managers cannot be characterized as self-satisfied or complacent regarding having sufficient knowledge about their users' needs. To the additional question *How would this information be of help to you? That is, in what specific ways would you make use of the information?*, the respondents produced a corresponding diversity of answers, as presented in Displays 67A, 67B, and 67C. "Designing new services and products," "revising existing ones," and "modifying or augmenting the collection or files" are common themes. "Changing management and operational procedures"

received occasional mention. "Planning marketing" and "Getting new users" were also ways in which the information was to be used. For each group of respondents, it seems that EIS improvement is envisioned as the sum of several modest improvements, the priorities of which vary from site to site. No very expansive plans are entertained with real seriousness, because no very great opportunities to expand audiences or levels of service are envisioned for the near future.

66 Another facet of the ongoing relationship between the entities we have termed "EIS" and the conditions which motivate their existence is limned by responses to two questions: *Was your collection originally established in response to specific needs or requests? If so, how was the need identified?* and *Is your collection now directed toward specific needs or requests? If so, how was the need identified?*. Displays 68A, 68B, and 68C provide results for Print, Non-Print, and Machine-Readable files respectively. For both Print and Non-Print collections, the most frequent response was "Collection-Oriented," (i.e., initial motivation was expressed as some form of desiring to build a collection, preserve the valuable materials, etc.). The next most frequent response for both was "Federal Decision or Program" as the source of the crucial initiative. "Evolution" was mentioned next most often for Print collections, followed by "Service-Oriented" for both types of collections (i.e., the need to create a certain kind or kinds of service or emphasis). For Print collections, "Audience-Oriented" responses were next (i.e., the requirement to serve a specified kind of audience, whatever their needs), while for Non-Print collections "Product Oriented" responses were next (i.e., the need to produce certain kinds of information products, independent of audience served or information contents to be purveyed). Thus, the response patterns for Print and Non-Print collections seem very much alike, with minor variations. Similarly, in response to the second question about current status of needs and requests justifying EIS existence, for both Print and Non-Print respondents the most common answers were "No Change" from the original motivating

conditions, and "No Specific Answer" to the question (Displays 69A and 69B). While there were a few mentions of changes in some orientations, the conditions creating the need for Print and Non-Print collections were not perceived as changing rapidly.

67 For Machine-Readable respondents, answers to the two questions were sparser and of a somewhat different pattern from the other two types of collections. For the question on initial origins (Display 68C), the entirety of answers was focused on user needs, five of them on "General Expressed Need," and the remainder on specific categories of needs, or of users, or of initiating persons or agencies. The impressions are two: First, the originating events are recent enough to be fresh in memory, and second, the initiations seem more frequently to be reactive to specific conditions rather than programmatic in nature. These observations are, of course, only the impressions of the writers of this report. No very useful responses were obtained for Machine-Readable files from the question about changes leading to the current status (Display 69C).

68 There were no discernible differences in trends among the response patterns for Print, Non-Print, and Machine-Readable collections to the question *How do users normally find out about this collection or file?*. The same range of publicity channels, in roughly the same ranking, is mentioned for all three in Displays 70A, 70B, and 70C. Similarly, Displays 71A, 71B, and 71C show no marked variations among their patterns of response to the question *Do you publish any information related to your files in newsletters, announcements, etc.?*. Finally, the same essentially equivalent response distributions resulting from the question *What type of advertising do you do?* are portrayed in Displays 72A, 72B, and 72C. Thus, an exhaustive and somewhat redundant pattern of questioning can find no clear trend differences between Print, Non-Print, and Machine-Readable collections with respect to the pattern of the publicity activities in which they engage.

69 The pattern common to all three types of collections is that slightly less than half claim to do no advertising, though most reported publishing brochures, flyers, newsletters, bulletins, or announcements. Among the half who do advertising, channels include "journals," "direct mail," "exhibits at conventions," "posters," "press releases," "slide-tape presentation," and even, on occasion, "TV spots and programs." Other activities mentioned as advertising include "inservice training workshops," "school visits," and "speakers bureaus." In addition, Print and Non-Print collections report publication of descriptive materials such as "acquisition lists," "catalogs," "compilations of bibliographies," and "abstracts and indexes," while Machine-Readable files services publish "information packets" and "user manuals," all of which have some publicity components.

70 At this point, it is well to recall that responses to earlier questions on budget allocations and on possible budgetary increases and decreases assigned marketing and promotion relatively low priority. Thus, responses to the immediately preceding group of questions essentially reinforce the earlier findings; on the average, conventional marketing and promotional activities and methods are known to EIS managers, but are used sparingly, if at all. This is true even though such managers report one of their most important problems to be that of contacting users and educating them to overcome their resistance to the use of education information. Perhaps what is needed is something more intensive, interventive, (and costly) than the conventional range of promotional methods. On the other hand, perhaps what is needed is more thorough use of conventional methods (again, with more costs). To compound the problem, if any array of methods were successful in markedly increasing demand, a significant proportion of the EISs would probably require increases in their personnel to handle the increased service demands.

71 The promotional and outreach activities discussed above are one aspect of an EIS that helps define what might be termed its "approachability factor." The other main aspect is the service request channel. Displays 73A, 73AA, 73B, and 73C provide answers to the question *How do users obtain information or materials from your collection or file?*. For Print collections, Display 73A shows that "Telephone Calls," "Letters," "Personal Walk-Ins," and "Mail" account for the first four frequency ranks of response. "Field Agents" and "Subscription" follow next. The balance of the distribution is taken up with responses describing query negotiation and searching arrangements, delivery mechanisms, and products. For Print collections only, the additional question *In your opinion, do your users find it easy to obtain information from your collection?* received 29 "Yes" responses from a total of 37 substantive responses (Display 73AA). For Non-Print collections, access through phone calls ranks much lower than it does for Print collections, and the same can be said for Machine-Readable files (Displays 73B and 73C). "Access through Catalogs" was the most frequently mentioned method for obtaining information from Non-Print collections. For Machine-Readable files, access through "Intermediaries" was reported most often, followed by "Access through Intermediaries or Directly by User," while "Batch Search Formulations," "Catalogs," and "On-Line Access Terminals" each received less mention. For users of on-line access systems, a majority access the system through intermediaries rather than operate the terminal themselves. This arrangement is likely to remain the most efficient one for some time to come, because the equipment use cost effectiveness of trained searchers is still somewhat higher than for uninitiated searchers, and the monthly rental costs of terminals require the completion of a number of searches to justify the expenditure.

72 Earlier in the discussion of results, the point was made that most EIS managers appeared to have quite realistic expectations about how much help they can expect from new or advanced technology for solving the bulk of their problems in the near future. The net impression was that advanced technology was viewed as a set of variably useful tools, essential in some

applications in some settings, and superfluous in other applications in other settings. Few, if any, clearly envisioned a way that some magical combination of technological apparatus or techniques, in and of itself, could erase the main problem they believe they confront, namely, user ignorance, apathy, and even resistance. Some anticipated, or hoped, that new applications of the new technology may provide part of the solution, but pointed out that such increased effectiveness will almost certainly involve increased costs.

73 The viewpoint just sketched comes from direct and mutually shared practical experience. EIS managers, as a group, are not strangers to modern technology applications to information services, no matter which kind of collection and service they operate. This is indicated by responses to the question *What kinds of equipment or technology do you utilize in the performance of your activities or services?*. Displays 74A, 74B, and 74C depict the results. About one-third of the Print collection respondents mentioned "Computer Terminal," "Microform Reader," "Microform Reader-Printer," "Computer and Peripherals," and "Microform Duplicator or Producer." Copying equipment and presses are used, as well as a range of other technical gear. Non-Print collections use projectors of all kinds, and audiotapes and cassette recorders. "Computers and Peripherals," "Laminators," "Printing and Offset Presses," and "Slide Production and Duplication Equipment" received mention. Among many others, "Delivery Vans," "Radio Transmission," and "Television Transmission" received one mention each. Somewhat surprising is the sparsity of mentions provided by the Machine-Readable respondents. Only half mentioned computers, and their average number of mentions per respondent was 1.3 as compared to 3.4 for Non-Print respondents and 2.6 for Print respondents. From a technology applications view, Machine-Readable services show signs of being somewhat more narrowly specialized than services based on the other types of collections.

74 Another aspect of Education Information Services that is of importance to their ability to deliver information is the nature of their collections, specifically the completeness and currency. Displays 75A, 75B, and 75C provide distributions of answers to the question *Are you maintaining as large or comprehensive a file as is needed by the users presently served?*. For Print collections, about 40 percent answered "Yes" and about 40 percent "No," the remainder being uncertain. For Machine-Readable files the percentages were approximately the same. For Non-Print collections, however, about 75 percent answered "No." These results would be interesting if further, more specific inquiries show them to be generalizable. They again raise the kinds of questions which have been asked many times before, but which have rarely received answers that remain satisfying under continued scrutiny.

75 What are, or should be, the accepted signs that a given collection is approaching sufficiency with respect to its degree of comprehensiveness? Is it based on satisfying expressed or defined needs of the user group, or on the parameters of what is available to be gathered given sufficient effort, or on both of these considerations? What proportion of audience needs is it reasonable to expect to satisfy directly from the collection without recourse to referral or borrowing? What proportions of requesters may, in good conscience, be delayed, disappointed, surfeited? Another kind of question assumes different kinds of collections aimed at different subsets of the audience and at satisfying different needs. How should measures of collection improvement be scaled for them? How can some measure of education value be assigned to such scale values? Or, again, how should augmenting the collection be traded off against additional promotional activities, or against more intensive outreach and linking programs? What are the considerations that form the tradeoff judgments? In arriving at resource allocation decisions in managing an EIS, assumptions must be, and are, made about such issues, either explicitly or implicitly. To EIS managers, there are important and perplexing questions which they do not find answered satisfactorily by information currently available to them.

76 Most collections continue to grow. To the question *Has your collection been on the increase, on the decrease, or stayed about the same over the past two years?*, most of the respondents for all three types of collections reported an increase (Displays 76A, 76B, and 76C). Machine-Readable respondents showed a somewhat greater proportion of "No Answer" responses, indicating the possibility that they did not know details of growth. For all three kinds of collections, budgetary considerations received frequent mention in answer to the question *How are your collection limits, or priorities determined? That is, who decides, and on what basis?* (Displays 77A, 77B, and 77C). Again, Machine-Readable respondents gave an apparently higher proportion of "No Answer" responses. "Staff members" and "advisory groups" are the main personnel who decide such matters for all three kinds of collections. Does the manner of determining file limits or priorities have any systematic relationship to the size or comprehensiveness of the file? For all three groups, Print, Non-Print, and Machine-Readable files, sites were separated into those answering "Yes" and those answering "No" to the question *Are you maintaining as large or comprehensive a file as is needed by the users presently served?*. Comparisons of the response distributions for "Yes" and "No" pairs of groups to the question *How are your file limits or priorities determined?* revealed no noteworthy or interpretable differences between pairs for Print, Non-Print, or Machine-Readable files.

77 For Non-Print collections only, two additional questions were asked. Display 78B gives responses to the question *What means of bibliographic control do you use for your collection?*. About half the respondents reported use of such controls and half reported no such use. To the question *Do you provide any assistance (training guides, instruction manuals, personal assistance) in the use of any of the materials in your collection?*, Display 79B shows that most of the Non-Print collection EISs offer various forms of such assistance. For Machine-Readable files only, four additional questions were asked. Display 80 shows that the main answer is "No" to the question *Is any information in the file(s) sensitive or confidential?*. The

distribution of responses showing the estimated average number of characters per record in the Machine-Readable files is given in Display 81C. The two most frequent responses were "ERIC" and "No Answer." One respondent reported records of more than 2,000 characters. Updating frequencies for files vary widely, as indicated in Display 82C. To the question *How long a time elapses between the original creation of the data and its inclusion in your file?*, the average response is about three to four months (Display 83C).

78 The comparisons between Print, Non-Print, and Machine-Readable collections made up to this point have been based on responses gathered from the three separate versions of Section II of the interview guide (collection description). To develop further the bases for comparison, separate distributions of responses for the three collection types to several questions from Section I (general description) and Section III (linking and outreach) were also analyzed. In this case, however, all respondents were not necessarily answering questions from sections I and III with respect to a single type of collection. Therefore, only sites having a single type of collection were included in this extra analysis, with the result that the sample sizes were reduced to 29 Print collections, three Non-Print collections, and 10 Machine-Readable files. These reduced sample sizes should be kept in mind when considering the results, especially for Non-Print collections.

79 An earlier question in Section I of the interview asked *How many other information resources are there in the United States that are similar to yours?*. The most interesting responses were to the sub-question *How are they similar?*, and they are depicted in Display 31. As indicated there, about half the comparisons were made on the basis of similarities in technical functions. Responses to the question *How are they similar?* are also depicted separately for Print collection sites only, Non-Print only, and Machine-Readable only, in Displays 84A, 84B, and 84C. Average number of responses per respondent was: one for Print collections, .66 for Non-Print,

and 1.9 for Machine-Readable files. All mentions of financial aspects appear in the Print collection responses, as do nine of the 12 mentions of organizational level and affiliation. Five of the seven mentions of computers appear in the Machine-Readable responses.

80 Aside from these subtle differences, the distributions of responses appear quite comparable. It seems likely that the question was not an easy one for the respondents to answer, both because of the low response rate obtained and because of the general, rather than specific, level of the answers. Thus, we infer that EIS managers as a group do not appear to have a wide and detailed working knowledge of the insides of many other EISs, nor do technical comparisons between EISs appear to be a topic of much interest or perceived usefulness to them. The weight of the attention seems, rather than being directed laterally to other EISs, to be directed toward the sources of solutions to their immediate operational concerns, such as updating their information, assuring their funding, keeping abreast of happenings within the power structure, and, most importantly, trying to satisfy their current users. Many seem to perceive and report a sense of being relatively unique from a requirements, a situational, or an operational point of view. One can infer that many may accept a certain sense of professional isolation as "par for the course" in their business. Having what are perceived as unique problems requiring unique solutions, there may be few outside sources to which they feel they can confidently turn for highly relevant advice.

81 Separate response distributions were also obtained for Print, Non-Print, and Machine-Readable collections to the question *Which of the activities on List C do you perform as part of your service?* (Displays 85A, 85B, and 85C). In distinction to the previous question, this one generated a high response rate, partly, of course, because it was a checklist task requiring recognition rather than recall. "Specific searches of literature files to identify relevant documents" received 72 percent of Print collection responses, 30 percent of Non-Print collection responses, and 60 percent of

Machine-Readable files responses. "Access to experts in evaluating and recommending promising educational practices" comprised 26 percent of Print collection responses, 66 percent of Non-Print responses, and 20 percent of Machine-Readable responses. These minor possible difference trends in an expected direction are far overshadowed by the relative flatness of the distributions and tendency for all categories on the checklist to be checked for all three kinds of collections. Thus, at least for the kinds of activities depicted on the checklist, a reasonable hypothesis is that there are larger within-groups than between-groups differences in activity patterns for Print, Non-Print, and Machine-Readable collections. If this hypothesis should be supported by more specifically focused inquiries, it could highlight yet another possible facet of the problem discussed earlier. An EIS manager may have difficulty in identifying other EISs with situations he perceives as sufficiently identical to his own to make the results of sharing problems and viewpoints seem to him worth the costs of conducting such activities.

82 On the other hand, the situational requirements for service operations involving the three kinds of collections are obviously not identical, as some earlier results have suggested. Still another area for which the outlines of systematic differences may be discerned is that of estimated preferences of their users for categories of collection. From Section III of the interview guide, the question was posed *Which of the following files would be most useful to you or your users?*. Five choices were named: "Human Resources," "Legislative/Legal," "Curriculum Materials," "Non-Print Media," and "Promising Practices." Results are depicted in Display 86. Print collection respondents expressed a positive balance of usefulness estimates for "Human Resources," "Legislative/Legal," and "Promising Practices," and a neutral to negative balance for "Curriculum Materials" and "Non-Print Media." Non-Print collection respondents expressed a positive balance of usefulness for "Non-Print Medi ," a neutral to negative balance for "Human Resources," "Curriculum Materials," and "Promising Practices," and a negative balance for "Legislative/Legal." Machine-Readable

files respondents expressed a positive balance for "Curriculum Materials" and "Promising Practices," a neutral balance for "Human Resources" and "Non-Print Media," and a negative balance for "Legislative/Legal."

83 The results for Print collections appear to fit a conventional concept of materials suitable for Print collection specialization, just as the results for Non-Print collections fit the corresponding concept of specialization for Non-Print collections. (The Non-Print only sample is, of course, too small to attach any confidence whatever to the results.) The Machine-Readable responses also make sense if it is assumed that the respondents are primarily interested in providing rapid intellectual access to the kind of information that is equally useful in widely different areas, being relatively independent of local interpretation, local support, or local validity for its usefulness. Highly comprehensive files of citations for "Curriculum Materials" and for "Promising Practices" could be developed to provide rapid and complete nation-wide intellectual access to such materials. The problem of providing comparably rapid materials backup services might require a distribution centers network. A machine-readable union catalog could facilitate rapid location of the repository best able to service each request for backup materials. Since Print collection respondents also appeared most interested in "Promising Practices," such a project might be judged as a good place to start by both Machine-Readable and Print collection sectors of the U. S. Education Information Service complex. A similar effort directed at "Curriculum Materials" (posing somewhat more difficult technical and logistic problems) could be phased for a later start, in order to have its way smoothed by what is learned in establishing the "Promising Practices" network.

84 Comparison of response distributions to the question *Do you offer any guidance to or explanation of reference or materials when they are delivered to the user?* (Displays 87A, 87B, and 87C) suggests that such practices may be a somewhat more consistent part of the activities of

Print collection services than of the other two collection types. The main content of such explanations seems to be descriptions of the searching formulations and search procedures used (probably as one more assurance to the user that the query negotiation step has, in fact, been effectively understood in both directions). For Machine-Readable files, one can guess that explanation of search results to the end-user is most frequently left to the query formulator who conducted the search from a remote terminal. Also, for Machine-Readable citation files, the indexing terms are often included as part of the records printout, which creates a kind of self-explanatory product.

85 Display 88 depicts results of the question *Do you publish any tools or guides on the use of your service?*. About one-third of the Print collection respondents answered "No," but all answers were affirmative from the Machine-Readable files group. To the question *Do you offer any training or workshops on the use of your service?*, a majority of both Print and Machine-Readable respondents reported some training activities, but the exact extent of these activities was not clear (Display 89). The publication of guides and explanations and the training of intermediaries and users were a major part of the outreach activities that appeared practicable to EISs.

86 A question reviewed earlier in other contexts was also analyzed by type of collection: *Are you serving as many users as you now have the capacity to serve?* (Display 90). About half the Print collection respondents and a major proportion of the respondents for the other two types of collections answered "No." The companion question (Display 91) asks *How are your service capacity limits or priorities determined?*. For Print collections, 18 of the 26 substantive responses are resource-related (funding, available staff, priorities, etc.), while for Machine-Readable files this ratio is only one in seven responses. The suggestion from the results of these two questions is that fewer of the Machine-Readable services are reaching

the upper limits of their present capacities than is the case for Print collections, and that the main limits on service capacity are set by resources rather than by any arbitrary standards. Thus, few EIS managers believe they are reaching all the potential users that could benefit from their services, but nevertheless few report very large proportional budgetary re-allocations for promotional and outreach activities.

87 One explanation for the apparent contradiction above is that excess service resources, including personnel, usually cannot be easily transformed into resources appropriate to outreach and promotional activities. To increase user demand to the level where it is making maximum use of available service resources might require addition of new resources for outreach and promotion. In the present external environments of EISs perceived by their managers (as reported earlier), antagonistic pressures on Education Information Service activities are perceived as even higher than they are on education R&D and on educational activities themselves. There may be fears that, in such a climate, to argue vigorously for additional resources to promote the demand for Education Information Services would be seen as self-serving on the part of EISs. Frankly aggressive promotional activities may be perceived as somewhat outside the professional role images of EIS personnel. Maintaining a high profile may be perceived as an invitation to get shot down. More specific inquiries seem warranted on these admittedly somewhat speculative points.

ANALYSIS OF SECTION III: INTERMEDIARY/LINKAGE ACTIVITIES

88 All respondents answered the 22 questions from this section of the interview guide. Question (1) results are not presented because it was highly redundant on earlier questions and in half the interviews it was not asked; when it was, answers were perfunctory. Also, the results from seven other Section III questions have already been discussed where they seemed appropriate to the context of the discussion; these will receive minimum additional attention here.

89 At the end of the previous section, it was suggested that some EIS managers might not press for additional resources for promotion to stimulate what their support-sources might perceive as "artificial" demand for EIS services. Another aspect of preserving high perceived value-returned to support-sources might be to restrict service to users who provide support directly or indirectly. Display 92 gives the response distribution to the question *Are there any limitations or restrictions on the use of your services?*. About 40 percent of the respondents answered "No." Of the remaining 60 percent of the responses, 36 of the 39 responses refer to restrictions on types of users who can be served. Examination of the display suggests that most of these restrictions are aimed at reserving the services for those who have, directly or indirectly, paid for them.

90 Perhaps related to the above point is the pattern of responses obtained for the question *Does your service provide access to collections other than the one(s) we have discussed? If so, what are they?* (Display 93). Respondents mentioned an average of only .7 such alternate collections each, with almost 40 percent indicating no use of alternate collections. (Display 47A results discussed earlier showed that, for Print collections, referral to other sources was the main mechanism for handling requests unfillable from the EIS's own collection, and interlibrary loan was mentioned relatively infrequently.) Both the present display and these earlier findings suggest

a hypothesis. While arrangements for interlibrary loans and reciprocal uses of one another's data bases might open an EIS manager to the criticism of expanding service to outside users who provide no support to the facility, the practice of referral of users obviously would not. Another perhaps more likely explanation would be that while loan and mutual access arrangements are expensive of EIS resources for coordination, bookkeeping, etc., the practice of referral is much less so. For most EISs, the pattern of unfillable requests may be too diffuse to be satisfied mainly by reciprocal access or loan arrangements with a few other centers. Assigning weights to such alternative hypotheses would require more specifically focused inquiries than were attempted in the present study.

91 Formal arrangements with other organizations may more often be for the purpose of developing the EIS's own collection than for facilitating its users usage of other collections. This is suggested by comparisons between Displays 94 and 95. Display 94 shows that, to the question *Does your service participate in or use any information networks or cooperatives?*, about 65 percent of the responses indicated such participation, while Display 95 shows that, to the question *Are the materials to which you provide access inhouse, out-of-house, or a combination of the two?*, about 60 percent indicated entirely or mostly "inhouse" (i.e., on-site). The question arises as to whether there are any results that would suggest systematic differences between EISs with mainly inhouse and mainly out-of-house collection usage patterns. Sites answering "Entirely inhouse" and "Mostly inhouse" in Display 95 were compared with those answering "Entirely out-of-house" and "Mostly out-of-house" on the following questions:

> *Which of the activities on this list do you perform as part of your service?*
>
> *Does your service use any computerized searching? Inhouse or out-of-house? On-line or batch?*

92 For the first of the two questions, Displays 96IN and 96OUT show the response distributions for inhouse and out-of-house services. Both types of service list "Specific searches of literature files to identify relevant documents" and "Quick delivery of requested documents" as the most frequent activities, and both types check most of the items with some frequency. However, out-of-house collection EISs rank "Technical reports dealing with methodology and findings," "Examination of critical education problems and their alternative solutions," and "Studies of actual cases that give concrete examples of educational innovations" high; inhouse collection EISs rank them lower. Also, "Access to someone to assist user in initiating new educational programs or practices," and "Lists of human resources with descriptive information (expertise and availability of consultants, trainers, etc.)" rank comparatively high for inhouse services but lower for out-of-house services. Thus, there appears to be some tendency for inhouse services to feature higher levels of immediate personnel availability, while the out-of-house services depend more on published materials covering somewhat the same information functions. The combined distributions (plus mixed service cases) are shown in Display 96.

93 The second of the questions *Does your service use any computerized searching? etc.* provided responses shown in Displays 97 and 98. Response distributions for inhouse and out-of-house service types are shown in Display 97. About three-fourths of the inhouse services reported that their computer is inhouse also, as compared to about one-fourth of out-of-house services. Proportions of batch and on-line service are about equally distributed for both inhouse and out-of-house services. The combined distributions (plus mixed services) are depicted in Display 98, which also provides the frequency breakdowns by type of supplier of service. Thus, the results for the above two questions show some expectable differences in activity patterns between inhouse and out-of-house services. The differences appear to be related mainly to the amount of personnel and computer services available on-site, with the out-of-house service being a small consumer of local site resources.

94 Display 99 shows responses from all sites to the question *How are information requests received by your service? (e.g., walk-in, telephone, mail, field agents).* Seven of the 53 sites responded "Not Applicable" or were not asked. The 46 responding sites produced 120 responses, of which 16 (13 percent) were "Field agent or Linker," or in other words were outreach-oriented responses. The remaining 87 percent of the responses were of the user-initiated pattern. "Letter" and "Telephone Call" each accounted for slightly more than a third of these responses, and "Personal Walk-in" accounted for slightly less than a third. The reactive, user initiated pattern was predominant, even though contacting and stimulating potential users was the most frequently reported problem area. Thus, the EIS managers as a group seemed well aware of the main missing ingredient for greater success of their operations--if only they could afford it.

95 Assuming that contact with a needful user is established, what is the shape of the technical tools which support the service response? Responses to the questions *Does your service make use of any of the products and services of an indexing and abstracting service (such as ERIC or NTIS)?* and *What are your opinions on these services in terms of ease of use, quality, utility, coverage, etc.?* are shown in Display 100. The most frequent response (48 mentions) was "ERIC," followed by "No, None, Nothing" (13 mentions). "Education Index," "NTIS," and "Psych. Abstracts" received about 10 mentions each, and about a dozen other products and services received fewer mentions. It is clear from both the frequency and tone of the comments that the ERIC system is the mainstay resource for EISs, with other services and products contributing essentially supplementary functions. It is also clear that there is still room for improving the ERIC system to an even more useful status in the eyes of some EIS managers.

96 The most striking thing about the pattern of responses to the question *What other kinds of reference tools do you use most often in filling user requests?* (Display 101) is the flatness and extended length of the response distribution. A host of tools is used, but there are few favorites. An inferrable conclusion is that education information reference service needs are indeed very broad-spectrum, even though there is a large core which can be handled by ERIC and a handful of other less-used, secondary organizations. A corollary is the importance of having EIS reference personnel who are highly trained and experienced with a wide range of less frequently used reference materials and tools. Where this is not practically feasible, it would seem important to have easy-to-use, well-defined referral arrangements and patterns; and as a matter of on-the-job training in reference work for the less experienced personnel, referrals of the more esoteric requests should not be merely passive hand-overs to other services. All involved parties should be debriefed on the tools used and the results obtained for such referred requests.

97 Of the 35 substantive responses (Display 102) to the question *What is your average turnaround time for a literature search? That is, how much time does it take, on the average, from the time a user's request is first received until the request is filled and ready for delivery?*, only three sites gave the response "Less than one day." Fifteen sites indicated the delay to be as long as one and a half to two weeks. (A frequently mentioned caveat was that response could be considerably faster in an emergency.) To this same question, the major on-line search services (NLM, NASA, Lockheed, SDC) would all answer "Less than one day," and further, would agree that such turnaround is now expected, indeed demanded, by their users. It appears that there is room for improving the search service turnaround time for the typical EIS. This seems true even though about two-thirds of the respondents gave some type of affirmative answer to the question *Do you review, critique, screen, or repackage materials from a search before passing them along to the user?* (Display 103).

98 It is admittedly hard to evaluate the relative importance of maintaining quality-control screening for the educator audience as compared to increasing rapidity of service response. But for wide ranges of scientific and technical information users, the on-line search services named above have experienced very rapid growth, and they typically mail high-speed line-printer products directly to the end-user "as is" within hours of the search transactions. There is, therefore, a possibility that greater emphasis on speed of response would provide part of the stimulative effect on users that is sought by the managers of EISs. Regarding the possible tradeoff between speed and precision or purity of search results, EIS managers are about evenly split in their answers to the question *Do you feel that users look to you to take a position on the utility and value of materials' information content/style/form?* (Display 104). On the other hand, although the question was not asked, it is safe to guess that most managers would also like to reduce their search turnaround times if they had the means to do so.

99 The diversity of situations and information needs to which EISs find themselves addressed is reflected not only in the range of bibliographic tools they employ, as indicated above, but also in the reported range of unfilled user needs for products and services. Display 105 provides answers to the question *Can you think of any specific products or services that your users need and are not now getting? If so, what are they and what do you think it would require to provide them?*. The specific wording of respondent answers was preserved in order to mirror faithfully the variety of responses obtained from the 38 sites providing substantive answers. It is possible to impose groupings on the data; e.g., "Analysis, synthesis, compilations"--seven or 11 responses depending on how grouped; "Statistics,"--six or eight responses; "Legislation, regulations, standards"--six or nine responses depending on definitions; and so on. The main purpose of any such grouping would be to lump together needs that might have a common pattern or mechanism for being filled, as a preliminary guide to possible concerted action. Viewed in this light, the diversity

and specificity of many of the responses suggests that federal- and state-level efforts in providing aid to EISs in product and service development might better use what can be called a "mixed" strategy, rather than a purely "main issues" strategy.

100 A main issues strategy would sort reported needs into groups, for each of which a single, well-defined general course of planned corrective action appeared feasible. Each such general plan could be evaluated for its overall predicted costs and benefits, and priorities for support for the various competing plans would be established. A mixed strategy would balance support between such a main issues approach and a "unique justification" approach. In the latter, a standardized, systems-analysis-based format for making and justifying a proposal for aid would be established. Help would be offered to potential applicants in accurately and properly following the format in their proposals. This would allow highly unique, specific forms of new product and service developments to apply for aid. To win support, the verified data offered in a proposal would have to justify the application in terms of the cost/benefit analysis format by which such proposals were value-ranked.

101 The topic of outside aid to EISs for improvement of specific products and services naturally brings to mind the question of self-support and its extent and pattern. Display 106 provides answers to the linked questions *Are there any charges to the user associated with the use of your services or products?--If so, to what extent do the charges offset your costs?* Only 12 of the 53 sites reported levying no charges whatever, but on the other hand, 30 of the charge-levying sites did not answer the question about charges offsetting their costs. The issue of EIS self-support is obviously a very complex and sometimes sensitive one. Should attempts to become, the potential to become, or the demonstrated ability to become self-supporting have a bearing on an EIS's acceptability for outside aid for development of new products and services?

How? What is the rationale? Although the present study did not explore attitudes about such questions formally or in any depth, it seems safe to predict that if they were explored, EIS managers would show far from a perfect initial consensus on many of the detailed issues involved. At present, however, there appears to be no effective nation-wide forum in which deliberations on such value-theory issues can proceed in an orderly fashion among those most directly affected by, and perhaps most able to develop, such standards.

102 An EIS manager might project the development of new products and services for users and potential users. But what is the nature of the experience with users? What is the image of the user from the manager's point of view, and on what basis has it been developed? Considering the latter question first, the results of earlier questions have already been discussed about contacts with users for service orientation, promotional, and request negotiation purposes. One additional facet of day-to-day user contact is portrayed by answers to the question *How do users obtain references or materials supplied by your service?* (Display 107). Similar to the earlier findings, responses were divided almost equally between contact by "mail" and contact via "personal pickup" or a "delivery service." (The sample does not allow accurate generalization of these proportions of response to the universe of U. S. EISs, but the roughly equal split is probably a reasonable initial estimate.) Most educators obviously have much higher ratios of "personal" as compared to "mail" contact with their clients or students than do EIS personnel with their users, and the practical reasons for this are clear. But is the magnitude of this difference between educators and EIS personnel larger than it should be? Is some of the difference at the possible expense of a loss of needed communication between EIS personnel and education information users? There are differences of opinion on this issue, but many EIS managers would like more direct contact with their users.

103 To obtain a sketch of impressions of users, an attempt was made to elicit differentiating characteristics that managers might use to tailor their interactions with users. The question was asked, *Have you noticed any differences between types of users? (e.g., in the nature of their requests, in their information needs, in their expectations, in their "information-proneness")?* (Display 108). Of the respondents, 40 percent had no answer or reported observing no differences between users. The most frequently mentioned characteristic was "User's Role," followed by "Information Experience, Sophistication," "Geographical/Political Differences," and "Amount of Use." For most of the 20 substantive characteristics mentioned, it is possible to imagine potential differences in service patterns that might be adaptive to users with greater or lesser degrees of the characteristic; but there is no discernible systematic aspect to the results.

104 As a final note regarding EIS managers' perceptions of the characteristics of their users, the question was asked *Generally speaking, how sophisticated do you feel your users are in terms of their information seeking and use?*. Display 109 shows that of the 59 responses, only 13 reported their users to be "Not sophisticated," "Below Average," "Some Totally Helpless," or "Low Search Formulation Skills." On the other hand, 25 reported "Above Average," "Very Sophisticated," "Increasing," "Good Estimators," "Frame Good Questions." The remaining responses were not markedly negative or positive. Only seven felt that they didn't know or couldn't answer. The balance appears to be toward a positive evaluation of users' sophistication. Would more frequent users be more sophisticated? Less frequent users less so? Non-users usually lacking in sophistication? Are more sophisticated users more desirous of remaining informed? Are less sophisticated users more needful of being informed? Is a certain sophistication requisite to persistent use of EIS facilities? If so, why? Such questions were not asked, nor is it likely that there would be high consensus among EIS managers' answers if they were asked. Factual answers to such questions would be very useful as guidance for planning promotional and outreach activities for EISs.

INTERVIEWER IMPRESSIONS

105 In the course of the interviews, a number of impressions emerged which represents images of "whole" EISs rather than of their aggregated characteristics. The following discussion deals with the most persistent of these impressions, and should not be considered as representing the results of data analysis.

106 As described earlier, the sample selection matrix was conceived as a convenience for sampling rather than as a final classification scheme. In fact, some EISs displayed aspects that could not adequately be represented in the matrix. An indication emerged from the interviews that there should be a fourth orientation, namely, "service-oriented" (in addition to the audience-, product-, and collection-orientations identified in the sampling plan). The service-oriented EIS differs from the audience-oriented EIS in that, while both share the goal of service, the audience-oriented EIS will provide whatever service is called for by the user's request. To this end, it will purchase materials, perform research, and invest great amounts of personnel effort and time.

107 By contrast, the service-oriented EIS more closely resembles the product-oriented EIS in the predetermined nature of its response; that is, the service-oriented EIS, like the product-oriented EIS, has a prescribed set of responses to user requests. This set may be fairly broad and flexible, but in general the types of requests that can be satisfactorily answered fall into consistent patterns, e.g.. ready-reference, retrospective literature searches, current awareness. If the request involves information not currently available, the EIS is not set up to do more than refer the user to experts and/or provide corollary information.

108 The service-oriented EIS has frequently evolved from an audience-oriented EIS and may, in special cases, still be able to respond as an audience-oriented EIS. In the course of evolution, however, the services have

developed fairly standard procedures for handling information requests by utilizing standard information sources and tools. This standardization allows the EIS to respond efficiently to a larger number of requests.

109 Creation of a category of service-orientation and assignment to it of EISs originally categorized as audience-oriented helped narrow the definition of audience-orientation. EISs that remained assigned to the audience-oriented category displayed a number of characteristics in common with one another. Generally, they serve a well-defined and limited set of users, either attempting to meet all their education information needs or to fill their requirements in a specific area, such as school finance planning. Usually, they are not engaged in aggressive attempts to attract new sets of users beyond those that are in their target audience.

110 The service-oriented EIS may perform some information transformation, adaptation, or packaging, but this is usually limited and most commonly takes the form of aid in interpreting information in its existing form, help in selecting and locating information identified by a search, or assembling prepackaged materials to meet common types of requests. Again, this more standardized approach is efficient, cost-effective, and adequately meets the requirements of a large percentage of requests.

111 In the case of audience-oriented EISs, the "raw" information nearly always undergoes some transformation or interpretation before reaching the end users; very rarely does the EIS pass along only citations or bibliographic references to the user. In fact, the user may have no contact at all with the information gathered to meet his needs; rather, the information may reach the user in the form of workshops or training sessions or as a final report; it may even reach the user in the form of advice or consultation by the EIS. This information reworking and in-depth attention means that

fewer requests can be handled at any one time than can be managed by service-oriented EISs. In some instances, it can also mean that a project lasts several months, much longer than would normally be found in service-oriented EIS responses.

112 As already mentioned, the target users of the audience-oriented EIS are a well-defined, limited group of people. Perhaps because of this strong focus on a specific group, the audience-oriented EISs seem to be in comparatively close and continuous contact with their users; they are less inclined to conduct user studies or to express the need for information about their users. Significantly, their familiarity with the needs and desires of their users comes not only from their own attempts to communicate, but also from a willingness on the part of their users to provide feedback freely and often. When asked "How do you find out what your users want?" and "How do you know whether or not your users are satisfied?" this type of EIS indicated emphatically that their users were not shy about expressing themselves.

113 Service-oriented EISs, on the other hand, sometimes felt that users were reluctant to show dissatisfaction or request additional attention for fear of appearing ungrateful or of asking for too much (i.e., more than is available). This type of EIS also received both positive and negative feedback, but more commonly tended toward user studies or feedback forms to encourage input.

114 In summary, the audience-oriented EISs resemble consultant services, in that they attempt to help the user achieve a certain goal or goals, using whatever information sources are needed and adapting the information as required by the specific situation. This type of role is recognized in the Far West Laboratory's concept of the EIC (Education Information Consultant).

115 It is important not to forget that the orientations are by no means mutually exclusive and that a large number of the EISs interviewed could easily fit into more than one of the categories. Non-exclusivity might be expected to occur in two main situations. In the first, the EIS has a single primary orientation, but is influenced by circumstances to respond in a different orientation. For example, an EIS that usually would fit best into the service-oriented category might in some circumstances behave more like an audience-oriented EIS in pursuing a request beyond its normal course. This might tend to happen with a "cutting edge" request, where the legwork will be repaid in later requests for the same type of information. It might also occur when the requester occupies a position that would command special attention (e.g., the governor).

116 The second situation is one in which the EIS actually consists or two or more entities with different orientations. An example of this is the National Center for Educational Statistics, which is audience-oriented in its Technical Assistance programs, collection-oriented in its Survey activities, and product-oriented in its Handbook series. The original definition of an EIS specified that it be "administratively isolable." However, administratively isolable units can be identified at many levels; we may expect that those identified at the lowest levels would have a single orientation, at least in most instances; those identified at the level of a complex organization, such as NCES, may be expected to have many orientations which may blur in interacting among themselves.

117 Another factor that emerged from the interviews but was not directly addressed in the interview instrument is the length of time the EIS has been in existence and/or its stage of development. For example, the resources of EISs that had been in operation only a few months had to some extent to reflect the respondent's anticipations rather than current fact. In addition, EISs in early stages of development were not in a position to respond to such descriptive questions as the collection growth rate or policies on collection "purging."

118 On the other hand, several EISs were well along in development, so much so that their personnel were, in some cases, not familiar with the details of the EIS's early history. EISs with relatively long histories could sometimes point to changes in orientation, scope, or goals. An education information center could, for example, be established initially as an EIS for a local or intermediate school district and expand to serve a much larger audience. In other cases, an EIS had been set up to serve users in a specific content or program area and had spread into other areas where a need had been evident.

119 The changes made by EISs in adapting to expanded new roles sometimes involved experiences and developments that could be valuable for other EISs going through similar evolution. For example, an expansion of service area beyond that of a supporting agency usually means securing outside funding. That might be federal contracts and grants and it might be service contract arrangements with supporting agencies in the expanded service area. A document distilling the experience gained in working out these arrangements could save much time and effort for an organization just getting started. Indeed, even among fully-operational EISs, a regular comparison of practices and problems of other EISs could be very constructive in improving existing arrangements.

120 Both newly developed EISs and those that have been in existence for a while have been considered in this discussion, but one of the EISs visited was a single-time project which was fairly newly established and which had a foreseeable end to its activities. It had been set up to meet the specific need of school finance planning for state legislatures; once the current problems in school finance planning have been worked out for all the states, the EIS will have achieved its goal and will cease to exist. This type of EIS is clearly separated from the others in that the latter all were operating on an assumption of indefinite continuation. To be

sure, continuation was seen as contingent upon funding and other factors, but the assumption of continued need for service appeared valid enough to support planning for the future.

121 The one-time or single-event EIS presents some unique problems. Since it is set up to assist in a specific problem, it must be ready to provide assistance relatively quickly, before the time for useful assistance has passed. This obviates a leisurely, painstaking start-up. To complicate the issue further, the reason that such a specialized EIS is needed is that traditional EISs already in existence are not sufficient; therefore, the EIS is faced with assembling information in a hurry from non-traditional and, sometimes, informal sources. Such an EIS obviously requires personnel extremely knowlegeable in the problem area who have excellent contacts with others in the area.

DISPLAY 1

*G2. Describe the general purpose or mission of the resource.*

CONTENTS

FREQ

(24) General education content--Coverage of all education content areas, with no particular emphasis.

(07) Handicapped and special education--Includes physically and mentally handicapped and gifted.

(07) Policy-making, planning, lobbying--Support to education decision-making above the operational level, including legislation, regulation, and program planning.

(06) Vocational, technical, career education.

(05) Administration and management--Operational and planning information for noninstructional education services.

(04) Curriculum materials--Guides, handbooks, materials for curriculum planning and development.

(04) Instructional materials--Materials for use in classroom instruction.

(04) Nonprint media--Covers all audiovisual materials, including films and filmstrips, phonodiscs, audiotapes, videotapes, television programming, and graphics.

(03) Exemplary and innovative practices--Information on programs or practices that either serve as models for their type of practice or as examples of new approaches or techniques.

(02) Scientific/Technical--As opposed to behavioral and social. This would include the teaching of sci-tech subjects (e.g., ERIC* Clearinghouse on Science, Mathematics, and Environmental education).

(02) Statistics--Data on education and related social sciences.

(01) Civil Rights

(01) Psychology

*A list of acronym definitions is provided on pages A-185 and A-186.

DISPLAY 2

G2. (Continued)

SERVICE FUNCTION TYPE

FREQ

(30) Literature search service--Manual or computerized searching to identify documents or other materials for user's information needs. This includes both retrospective searching and current awareness/SDI.

(29) Distribute/provide materials--Maintain or provide access to collection of print and/or nonprint materials which can be made available for use.

(20) Package, Repackage Information--Gather and, sometimes, adapt or abridge information to create an information package for a particular topic or function area.

(18) Reference/referral service--Provides factual information or refers user to place where information can be found.

(09) Dissemination/diffusion--Actively providing information to users. Not the passive provision of access to materials, but a form of aggressive outreach to stimulate interest and use of information.

(09) Training, seminars, workshops--Exchanging information on techniques, practices, background, and innovations. Does not include orientation on use of information services or facilities.

(08) Consulting services--Provides expert consultation, stimulation, and/or technical assistance in designing, planning, or implementing programs or techniques in education.

(06) Clearinghouse--Actively acquires information (particularly fugitive) in a specific content or function area. Imposes initial bibliographic control and disseminates information, either directly or indirectly.

(05) Bibliographic control--Collecting, indexing, cataloging, and/or abstracting materials.

(05) Computer Services--Access to computer facilities and related equipment (e.g., terminals). May also include computer programs for data analysis or manipulation.

(04) Statistical Data, Collection, Collation, Reporting

(03) Instructional Materials Center--Provides guidance and/or materials to produce instructional materials. Also has samples of materials for examination by teachers.

(02) Media-Learner Matching--Assists in finding appropriate media for handicapped learners.

DISPLAY 3

G2. (Continued)

| FREQ | AUDIENCE TYPE |
|---|---|
| (36) | All types |
| (06) | Administrators, managers |
| (04) | Policy-makers, legislators |
| (04) | SEA Staff |
| (04) | Special/Handicapped Educators |
| (02) | Social Scientists |
| (01) | School Board Members |

DISPLAY 4

G2. (Continued)

| FREQ | SPAN/LEVEL |
|---|---|
| (17) | State/local |
| (12) | National/individual |
| (04) | National/Federal |
| (04) | Regional (multi-state)/individual |
| (03) | National/state |
| (03) | State/state |
| (03) | County |
| (03) | City |
| (02) | Not applicable |
| (02) | National/local |

DISPLAY 5

*G5. Please indicate the one primary institutional base of your organization or of your particular unit.*

| FREQ | |
|---|---|
| (12) | Private, Non-Profit Organization |
| (12) | State Education Agency |
| (11) | University |
| (07) | Intermediate Education Agency |
| (04) | Local Education Agency |
| (02) | Consortium |
| (02) | Other Federal Government |
| (02) | Private, For-Profit Organization |
| (01) | College |

DISPLAY 6

*G6a. From what source(s) is your resource funded?*

| FREQ | SOURCE | FREQ | MECHANISM | MEAN % |
|---|---|---|---|---|
| (10) | Private Individuals | (06) | Transaction Fees | 16% |
| | | (02) | Membership dues | 74% |
| | | (01) | Special Funds | 8% |
| | | (01) | Contracts | 2% |
| (09) | School Districts | (04) | Subscriptions | 61% |
| | | (03) | Contracts | 35% |
| | | (02) | Transaction Fees | 19% |
| (09) | State | (05) | Operational funds | 42% |
| | | (02) | Membership dues | 45% |
| | | (01) | Grants | 10% |
| | | (01) | Special Fund | 98% |
| (07) | NIE | (05) | Contracts | 64% |
| | | (01) | Grant | 45% |
| | | (01) | Operational funds | 33% |
| (05) | ESEA Title III, Title III-306 | (03) | Grant | 87% |
| | | (01) | Contracts | 77% |
| | | (01) | Grants | 88% |
| (05) | Federal agencies | (03) | Grants | 66% |
| | | (02) | Contracts | 60% |
| (04) | BEH (USOE) | (02) | Contract | 99% |
| | | (01) | Contracts | 67% |
| | | (01) | Grant | 99% |
| (04) | ESEA Title V | (02) | Contracts | 40% |
| | | (02) | Grant | 55% |
| (04) | Federal | (01) | Contracts | 50% |
| | | (01) | Operational funds | 99% |
| | | (01) | Special funds | 10% |
| (04) | School District | (04) | Operational funds | 32% |
| (04) | State agency | (03) | Operational funds | 70% |
| | | (01) | Transaction fees | 50% |

DISPLAY 6 (Continued)

G6a. (Continued)

| FREQ | SOURCE | FREQ | MECHANISM | MEAN % |
|---|---|---|---|---|
| (04) | University, College | (04) | Operational funds | 44% |
| (04) | Many Sources | (02) | Subscriptions | 99% |
| | | (02) | Transaction Fees | 87% |
| (03) | Foundations | (03) | Grants | 31% |
| (03) | Individual Schools | (02) | Contracts | 22% |
| | | (01) | Transaction Fees | 50% |
| (03) | State agencies | (01) | Contracts | 80% |
| | | (01) | Subscriptions | 06% |
| | | (01) | Transaction Fees | 05% |
| (03) | USOE | (02) | Contracts | 17% |
| | | (01) | Grant | 99% |
| (03) | Voc. Ed. Act., Voc. Ed. Act-Part C | (03) | Grant | 78% |
| (02) | No answer, can't answer, not specified | (01) | Contracts | 10% |
| | | (01) | Grants | 25% |
| (02) | County | (02) | Operational funds | 99% |
| (02) | Corporations P | (01) | Contracts | 08% |
| | | (01) | Special fund | 99% |
| (02) | ESEA Title I | (01) | Contract | 04% |
| | | (01) | Special funds | 50% |
| (02) | Federal agency | (01) | Grants | 30% |
| | | (01) | Operational funds | 99% |
| (02) | Sponsor Association | (02) | Operational funds | 16% |
| (02) | Universities, Colleges | (01) | Contracts | 20% |
| | | (01) | Subscriptions | 07% |
| (01) | Corporation P | (01) | Federal funds | N/A |
| (01) | DoT | (01) | Federal agency funds | N/A |

DISPLAY 6 (Continued)

G6a. (Continued)

| FREQ | SOURCE | FREQ | MECHANISM | MEAN % |
|---|---|---|---|---|
| (01) | ESEA Title VI | (01) | Grant | 25% |
| (01) | Federal Acts | (01) | Special Fund | 36% |
| (01) | Foundation | (01) | Grant | 36% |
| (01) | NASA | (01) | Special Fund | 25% |
| (01) | Sponsor Associations | (01) | Membership dues | 07% |

DISPLAY 7

*G9b. Can you give the approximate proportions of your current allocations of resources? That is, about what percentage is spent on the collection maintenance, how much on development of services, how much on staff, and so on?*

SINGLE SOURCE FUNDING SITES

| FREQ | | FREQ | PERCENTAGE | MEAN AVERAGE |
|---|---|---|---|---|
| (15) | Staff salaries | (03) | 75% | |
| | | (02) | 40% | |
| | | (02) | 60% | |
| | | (02) | 70% | |
| | | (01) | 20% | |
| | | (01) | 25% | |
| | | (01) | 53% | |
| | | (01) | 65% | |
| | | (01) | 80% | |
| | | (01) | 95% | |
| (06) | Computer time | (02) | 15% | |
| | | (01) | 5% | |
| | | (01) | 8% | |
| | | (01) | 20% | |
| | | (01) | 50% | |
| (04) | Acquisitions | (02) | 15% | |
| | | (01) | 7% | |
| | | (01) | 10% | |
| (04) | Collection maintenance | (02) | 20% | |
| | | (01) | 8% | |
| | | (01) | 10% | |
| (04) | Supplies | (01) | 10% | |
| | | (01) | 15% | |
| | | (01) | 20% | |
| | | (01) | 25% | |
| (03) | Program development | (01) | 10% | |
| | | (01) | 35% | |
| | | (01) | 55% | |
| (03) | Administration, management | (01) | 5% | |
| | | (01) | 8% | |
| | | (01) | 10% | |
| (03) | Travel | (01) | 5% | |
| | | (01) | 7% | |
| | | (01) | 10% | |

DISPLAY 7 (Continued)

SINGLE-SOURCE FUNDING SITES (Continued)

| FREQ | | FREQ | PERCENTAGE | MEAN AVERAGE |
|---|---|---|---|---|
| (02) | No answer, can't answer, not specified | | | |
| (02) | Postage | (02) | 10% | |
| (02) | Printing | (01) | 10% | |
| | | (01) | 15% | |
| (01) | Cataloging | (01) | 15% | |
| (01) | Development of services | (01) | 20% | |
| (01) | Editorial services | (01) | 20% | |
| (01) | Operations | (01) | 40% | |
| (01) | Retrieval | (01) | 35% | |
| (01) | Miscellaneous services | (01) | 80% | |
| (01) | Equipment rental | (01) | 10% | |
| (01) | Newsletter production | (01) | 30% | |
| (01) | Other computer/data processing services | (01) | 10% | |
| (01) | Advertising, promotion, marketing | (01) | 15% | |

DISPLAY 8

G9b. (Continued)

MULTI-SOURCE FUNDING SITE

| FREQ | | FREQ | PERCENTAGE | MEAN AVERAGE |
|---|---|---|---|---|
| (03) | No answer, can't answer, not specified | | | |
| (02) | Staff salaries | (01) | 60% | |
| | | (01) | 99% | |
| (01) | Future planning | (01) | No answer | |
| (01) | Miscellaneous services | (01) | 65% | |
| (01) | Consultant fees | (01) | 30% | |
| (01) | Travel | (01) | 10% | |
| (01) | Advertising, promotion, marketing | (01) | 35% | |

DISPLAY 9

*G9c. Do you see any changes in your present pa-tern of allocations for the future? If so, what are the reasons for the changes?*

SINGLE SOURCE FUNDING SITES

FREQ

(02) Promotion, marketing

(02) User services

(01) Computer costs

(01) New functions

(01) Personnel

MULTI-SOURCE FUNDING SITES

FREQ

(01) New functions

(01) Personnel

DISPLAY 10

*G7. Please describe briefly your organization's primary activities, i.e., what kinds of materials do you have and/or what kinds of products or services do you provide?*

| FREQ | | FREQ | |
|---|---|---|---|
| (18) | Literature searching, Computer | (01) | Resumes |
| (12) | Literature searching, Manual | (01) | SDI |
| (11) | Dissemination of info, materials | (01) | User Training for system use |
| (10) | Consulting, technical assistance | (01) | Video tape production |
| (08) | Audiovisual Materials | (01) | Voc. Ed. Support for diffusion project |
| (07) | Referral, reference, intermediary | (01) | Education Statistics |
| (07) | Bibliographies | (01) | Law Information |
| (07) | Workshops, training sessions, seminars | (01) | Implementation Assistance |
| (06) | Hard-copy backup; journals, microfiche | | |
| (06) | Instructional materials, games | | |
| (06) | Newsletter bulletin | | |
| (06) | Prepackaged information | | |
| (06) | Microfiche | | |
| (05) | Abstracting, Indexing, Cataloging | | |
| (05) | Computer on-line Information Retrieval | | |
| (04) | Data Sets collection | | |
| (04) | Facilitation of info, sharing, exchange | | |
| (04) | Handicapped films, materials | | |
| (03) | Evaluation of programs, products | | |
| (03) | Needs surveys, assessments | | |
| (03) | Research and development projects | | |
| (03) | Statistical collection, services | | |
| (03) | Teacher Guides | | |
| (02) | Abstracts, Indexes, Catalogs | | |
| (02) | Analyses of Information | | |
| (02) | Computer matching of instructional needs to materials | | |
| (02) | Computer services, including programs | | |
| (02) | Current Awareness Reports | | |
| (02) | Equipment, lend, rent, operators | | |
| (02) | Materials acquisition, adapt, distribute | | |
| (01) | Books | | |
| (01) | Career Education Clearinghouse | | |
| (01) | Collection Growth | | |
| (01) | Computer-Aided Instruction | | |
| (01) | Community Resources Team | | |
| (01) | Educational Television | | |
| (01) | Journal of Proceedings | | |
| (01) | NIMIS Training | | |
| (01) | Promising Practices File | | |
| (01) | Public Opinion Surveys | | |

DISPLAY 11

*G8a. Number of staff.*

| FREQ | FULL-TIME STAFF |
|---|---|
| (06) | 2 |
| (05) | 5 |
| (04) | 1 |
| (04) | 4 |
| (03) | 6 |
| (03) | 8 |
| (03) | 14 |
| (02) | 3 |
| (02) | 7 |
| (02) | 12 |
| (02) | 24 |
| (01) | 9 |
| (01) | 10 |
| (01) | 11 |
| (01) | 15 |
| (01) | 17 |
| (01) | 19 |
| (01) | 22 |
| (01) | 25 |
| (01) | 26 |
| (01) | 28 |
| (01) | 32 |
| (01) | 34 |
| (01) | 35 |
| (01) | 37 |
| (01) | 42 |
| (01) | 51 |
| (01) | 78 |

| FREQ | PART-TIME STAFF |
|---|---|
| (05) | 4 |
| (04) | 2 |
| (04) | 3 |
| (03) | 1 |
| (03) | 6 |
| (03) | 12 |
| (02) | 5 |
| (02) | 8 |
| (01) | 7 |
| (01) | 10 |
| (01) | 17 |
| (01) | 20 |
| (01) | 38 |
| (01) | 45 |

DISPLAY 12

*G8a. What are their roles?*

| FREQ | |
|---|---|
| (19) | Clerk-Typist-Secretary |
| (18) | Library Science SME |
| (15) | Administrator |
| (15) | Director |
| (09) | Clerk |
| (08) | Searcher-Computer |
| (07) | No answer |
| (07) | Information Specialist |
| (07) | Student Aide |
| (07) | Professional |
| (06) | Education Specialist |
| (06) | Supervisor |
| (05) | Administrative Assistant |
| (05) | Computer Programmer |
| (05) | Researcher, Education |
| (05) | Technical Assistant |
| (04) | Editor |
| (03) | Computer System Analyst |
| (03) | Coordinator |
| (03) | Searcher-Manual |
| (03) | Non-Professional |
| (02) | Abstractor |
| (02) | Driver |
| (02) | Media Processor |
| (02) | Media Specialist |
| (02) | Proof-Reader |
| (02) | Reprograph Operator |
| (02) | Systems Engineer |
| (01) | Accountant |
| (01) | Artist |
| (01) | Bookkeeper |
| (01) | Cataloger |
| (01) | Consultant |
| (01) | Curriculum Specialist |
| (01) | Diffusion Coordinator |
| (01) | Document Selector |
| (01) | Education Practitioner |
| (01) | Electronic Technician |
| (01) | Encoder |
| (01) | Encoder-Trainer |
| (01) | Indexer |
| (01) | Inspector-Shipper |
| (01) | Keypuncher |
| (01) | Lobbyist |
| (01) | Materials Specialist |
| (01) | Projectionist |
| (01) | Social Science SME |
| (01) | Vocational Educator |

DISPLAY 13

*G8b. Do you feel that the size and experience of your staff are adequate for your current requirements?*

FREQ

(27) Sufficient
(22) Insufficient
(01) No answer, can't answer, not specified
(01) Slight excess
(01) Very insufficient

Types needed

(02) Education Specialist
(01) Abstractor
(01) Clerk-Typist-Secretary
(01) Computer System Analyst
(01) Editor
(01) Field Agent
(01) Guidance Counselor
(01) Library Science SME
(01) Non-Western Cultures SME
(01) Psychology SME
(01) Searcher-Manual
(01) Student Aide
(01) Supervisor

DISPLAY 14

*G8c. Are there any areas in which you feel you could improve the capabilities or effectiveness of your staff?*

| FREQ | AREAS PERSONNEL |
|---|---|
| (32) | Yes |
| (16) | No, none, nothing |
| (05) | No answer, not specified |
| (02) | Clerk-Typist-Secretary |
| (02) | Computer System Analyst |
| (02) | Education Specialist |
| (02) | Researcher, Education |
| (02) | Professional |
| (01) | Computer Programmer |
| (01) | Consultant |
| (01) | Field Agent |
| (01) | Field Coordinator |
| (01) | Information Sepcialist |
| (01) | Library Science SME |
| (01) | Searcher-Computer |
| (01) | Technical Writer |
| (01) | Vocational Educator |

| FREQ | TOPICS |
|---|---|
| (06) | On-line Searching |
| (05) | Technical Training |
| (02) | Computer |
| (02) | New Data Bases |
| (02) | Special Education |
| (02) | Thin Markets |
| (01) | Attitude change |
| (01) | Dissemination techniques |
| (01) | Group dynamics |
| (01) | Information Science Literature |
| (01) | Instructional Materials |
| (01) | Query negotiation |
| (01) | SDI |

| FREQ | FUNCTIONS |
|---|---|
| (05) | Organizational development |
| (02) | Ed. Resource Identification |
| (01) | Equipment manipulation |
| (01) | Film Strip Production |
| (01) | Human Services in field |
| (01) | Job role differentiation |

DISPLAY 15

*G8d. Are you planning any new activities or services that will have impact on your personnel needs, in terms of either additional staff or additional skills or capabilities?*

| FREQ | |
|---|---|
| (33) | Yes |
| (18) | No, none, nothing |
| (03) | Computer on-line information retrieval |
| (03) | Field agents (outreach) increase |
| (02) | No answer, can't answer, not specified |
| (02) | Collection Growth |
| (02) | Computer services, including programs |
| (02) | Dissemination of info, materials |
| (02) | Expand State-wide |
| (02) | Workshops, training sessions, seminars |
| (01) | Anniversary Publication |
| (01) | Analyses of Information |
| (01) | Adult Information Needs Program |
| (01) | Career Education Clearinghouse |
| (01) | Computer-Aided Instruction |
| (01) | Computer-based Management Information System |
| (01) | Computer Output to Microfiche |
| (01) | Communications Network |
| (01) | Community Resources Team |
| (01) | Consulting, technical assistance |
| (01) | Data Sets collection |
| (01) | Decentralization of operations |
| (01) | Directories |
| (01) | Educational Television |
| (01) | Evaluation of programs, products |
| (01) | Facilitation of info, sharing, exchange |
| (01) | Guest Editorials |
| (01) | Handicapped films, materials |
| (01) | Learner development records system |
| (01) | Prepackaged information |
| (01) | Promising Practices File |
| (01) | Public Opinion Surveys |
| (01) | Practitioner Evaluation Board |
| (01) | Research and development projects |
| (01) | SDI |
| (01) | Voc. Ed. Support for diffusion project |
| (01) | Voc. Ed. Training for staff |
| (01) | Video tape production |
| (01) | Photocomposition |
| (01) | Continuing Ed. for Health Professional |

DISPLAY 16

*G8e. Are there personnel available to meet these needs?*

| FREQ | |
|---|---|
| (32) | Yes |
| (15) | No answer, can't answer, not specified |
| (6) | No, none, nothing |

DISPLAY 17

*G9a. What areas would be most affected by increases or decreases in your budget? That is, would budget changes most likely be applied to the area of staffing, acquisition, linkage, etc.? Or would you tend to spread the increases or decreases across all areas more or less evenly?*

| FREQ | INCREASE AREAS/ACTIONS |
|---|---|
| (11) | Staff--More staff, better qualified people, improved capabilities for existing staff, new functions or capabilities |
| (09) | Services--More linkage, extension, searching, packaging, user training, new services |
| (06) | Products/publications--Expand publications, increase data base size, develop products |
| (04) | Projects/programs--I.D. areas for research, establish on-going research projects, initiate new national study programs |
| (03) | Marketing and promotion |
| (03) | Needs assessment--Perform needs assessments |
| (03) | Operations--Update cataloging, more tabulations, introduce more technology (e.g., terminals, microform), increase acquisitions |
| | **DECREASE AREAS/ACTIONS** |
| (09) | Service--Cut back or eliminate external access or services, reduce amount or quality of service, cut clients not staff |
| (07) | Collection/materials--Cut back on hard copy files (and go to microform), reduce available materials, reduce reference collection, cut materials and rely on interlibrary loan |
| (06) | Staff--Cut back on staff, lose part-time staff, lose all staff |
| (04) | Operations--Cut back on production (e.g., A & I of fewer documents), centralize fiche reproduction, cut back on physical facility, produce fewer information products |
| | **BOTH INCREASE AND DECREASE AREAS** |
| (06) | Staff--Area first affected, first to increase-last to decrease |
| (05) | All areas--Even spread of increases and decreases across areas |
| (03) | Acquisitions |
| (03) | Materials and supplies |
| (01) | Equipment |

DISPLAY 18

*D21a. Are you serving as many users as you now have the capacity to serve?*

| FREQ | |
|---|---|
| (31) | No, none, nothing |
| (16) | Yes |
| (05) | No answer, can't answer, not specified |
| (01) | Not applicable |
| (01) | Lack sufficient TV equipment to expand |
| (01) | Priority of service system would increase effective capacity |
| (01) | System could take more, not present staff level though |

DISPLAY 19

*G9b. Can you give the approximate proportions of your current allocations of resources? That is, about what percentage is spent on the collection maintenance, how much on development of services, how much on staff, and so on?*

| FREQ | RESOURCES ALLOCATION | FREQ | PERCENTAGE | MEAN % |
|---|---|---|---|---|
| (35) | Staff salaries | (05) | 60% | |
| | | (05) | 75% | |
| | | (05) | 80% | |
| | | (03) | 40% | |
| | | (03) | 70% | |
| | | (02) | No answer, can't answer, not specified | |
| | | (02) | 65% | |
| | | (02) | 90% | 68% |
| | | (02) | 99% | |
| | | (01) | 20% | |
| | | (01) | 25% | |
| | | (01) | 50% | |
| | | (01) | 53% | |
| | | (01) | 95% | |
| | | (01) | 98% | |
| (14) | Computer time | (03) | 15% | |
| | | (03) | 20% | |
| | | (02) | 10% | |
| | | (01) | No answer, can't answer, not specified | |
| | | (01) | 5% | 21% |
| | | (01) | 6% | |
| | | (01) | 25% | |
| | | (01) | 50% | |
| | | (01) | 60% | |
| (09) | No answer, can't answer, not specified | | | |
| (09) | Acquisitions | (02) | 5% | |
| | | (02) | 10% | |
| | | (02) | 15% | 20% |
| | | (01) | 7% | |
| | | (01) | 30% | |
| | | (01) | 80% | |

DISPLAY 19 (Continued)

| FREQ | RESOURCES ALLOCATION | FREQ | PERCENTAGE | MEAN % |
|---|---|---|---|---|
| (09) | Collection maintenance | (03) | 20% | |
| | | (02) | 5% | |
| | | (01) | No answer, can't answer, not specified | |
| | | (01) | 8% | 15% |
| | | (01) | 10% | |
| | | (01) | 15% | |
| (08) | Supplies | (01) | No answer, can't answer, not specified | |
| | | (01) | 2% | |
| | | (01) | 5% | |
| | | (01) | 10% | |
| | | (01) | 14% | 13% |
| | | (01) | 15% | |
| | | (01) | 20% | |
| | | (01) | 25% | |
| (07) | Travel | (03) | 5% | |
| | | (02) | 10% | 9% |
| | | (01) | 7% | |
| | | (01) | 20% | |
| (06) | Administration, management | (02) | 10% | |
| | | (01) | 5% | |
| | | (01) | 6% | 13% |
| | | (01) | 8% | |
| | | (01) | 15% | |
| (04) | Misc. services | (01) | 5% | |
| | | (01) | 20% | |
| | | (01) | 65% | |
| | | (01) | 80% | |
| (03) | Program development | (01) | 10% | |
| | | (01) | 35% | |
| | | (01) | 55% | |
| (03) | Advertising, promotion, marketing | (01) | 10% | |
| | | (01) | 15% | |
| | | (01) | 35% | |

DISPLAY 19 (Continued)

| FREQ | RESOURCES ALLOCATION | FREQ | PERCENTAGE | MEAN % |
|---|---|---|---|---|
| (02) | No, none, nothing | | | |
| (02) | Operations | (01) | 30% | |
| | | (01) | 40% | |
| (02) | Facilities rental | (01) | No answer, can't answer, not specified | |
| | | (01) | 5% | |
| (02) | Postage | (02) | 10% | |
| (02) | Consultant fees | (01) | 10% | |
| | | (01) | 30% | |
| (02) | Other reproduction | (01) | 20% | |
| | | (01) | 60% | |
| (02) | Printing | (01) | 10% | |
| | | (01) | 15% | |
| (01) | Cataloging | (01) | 15% | |
| (01) | Development of services | (01) | 20% | |
| (01) | Editorial services | (01) | 20% | |
| (01) | Future planning | | No answer, can't answer, not specified | |
| (01) | Research | (01) | 80% | |
| (01) | Retrieval | (01) | 35% | |
| (01) | Subscriptions and standing orders | (01) | 5% | |
| (01) | Communications | (01) | 5% | |
| (01) | Equipment rental | (01) | 10% | |
| (01) | Staff development | (01) | 10% | |
| (01) | Newsletter production | (01) | 30% | |
| (01) | Other computer/data processing services | (01) | 10% | |

DISPLAY 20

*G9c. Do you see any changes in your present pattern of allocations for the future? If so, what are the reasons for the changes?*

| FREQ | |
|---|---|
| (27) | No, none, nothing |
| (13) | No answer, can't answer, not specified |
| (13) | Yes |

| FREQ | DECREASE AREAS |
|---|---|
| (03) | Personnel |
| (02) | Acquisitions |
| (01) | Computer costs |
| (01) | Equipment |
| (01) | Materials and supplies |

| FREQ | INCREASE AREAS |
|---|---|
| (03) | Personnel |
| (02) | Computer costs |
| (02) | New functions |
| (02) | Promotion, marketing |
| (02) | User services |
| (01) | Acquisitions |
| (01) | Publications |

DISPLAY 21

*G10. Would you consider your resource's future over the next several years to be a stable one, in terms of continuing to exist as a recognizable entity, having essentially the same objectives and characteristics?*

| FREQ | |
|---|---|
| (48) | Yes |
| (05) | No, none, nothing |

DISPLAY 22

*G11a. Do you have any plans to change your collection, products, or services in any significant way in the future?*

| FREQ | |
|---|---|
| (30) | Yes |
| (23) | No, none, nothing |
| (05) | Add new information products |
| (05) | Expand dissemination activities |
| (04) | Expand existing subject coverage |
| (03) | Expand along planned lines |
| (02) | Add computer service |
| (02) | Expand linking activities |
| (02) | Improve cost/benefits analyses |
| (02) | Improve teacher involvement |
| (01) | Add CAI |
| (01) | Add diffusion of promising practices program |
| (01) | Add referral "pathfinder" service |
| (01) | Expand user information needs survey activities |
| (01) | Improve costing procedures |
| (01) | Improve media currency updating |
| (01) | Improve newsletter (larger, wider target audience) |
| (01) | Improve operational efficiency |
| (01) | Improve search and retrieval sophistication |
| (01) | Diminish service (shorter hours, part-time) |

DISPLAY 23

*G11b. What kinds of considerations contributed to your plans for change? That is, on what basis, making what assumptions, did you formulate your plans?*

| FREQ | |
|---|---|
| (23) | No answer, can't answer, not specified |
| (11) | User Market Demands |
| (05) | Improvement of service |
| (05) | Information currency |
| (04) | Comparisons with other similar products |
| (04) | Availability of finances |
| (02) | Leads from field |
| (02) | Project Grant Guidelines |
| (02) | Aim to reach more users |
| (02) | Personalized user contact |
| (02) | Product ease-of-use |
| (01) | Invitation to participate |
| (01) | Research findings |
| (01) | User needs for referral service |
| (01) | Aim to increase teacher involvement |
| (01) | Increased latitude of topic scanning |
| (01) | Rapid delivery of service |
| (01) | Sensed limitations in collection |
| (01) | Better use of Environmental Information Resources |
| (01) | Consistent System Development |
| (01) | Cost reductions |
| (01) | Practical feasibility |

DISPLAY 24

*G19. In general, how well do you think people involved in education are being served in terms of their information needs? (Probe for perceptions of nature of inadequacies.)*

| FREQ | |
|---|---|
| (15) | Spotty, Mixed, Not very well |
| (12) | Poorly |
| (08) | No Generalization |
| (06) | Passably Well |
| (04) | Bad, Minimally |
| (03) | Quite Well |
| (03) | Very Well |
| (02) | No answer, can't answer, not specified |

DISPLAY 25

*G19. (Probe Elaborations)*

FREQ

(15) Users ignorant of availability; what, where, how to get.

(10) In general, difficult user access; need linking, proximity, PR, ready response.

(08) In general, user information needs not known, understood.

(08) Users don't know they have needs, don't want, seek, don't believe have needs.

(07) In general, too much material; needs summarizing, etc.

(06) In general, overall ed. must provide incentives for information use.

(05) Insufficient outcomes information

(05) Users have no time to get, digest new information.

(04) Need more resources for dissemination.

(04) Need "where is the information" type dissemination.

(04) Users perceive selfs as providers, not seekers, of information.

(04) Users use info. to justify status quo, not change and new decisions.

(03) Users have bad attitude about ERIC.

(02) Special Ed. contents delivery inadequate.

(02) ERIC is best thing.

(02) ERIC should be partitioned.

(02) Add computer searching on broad scale.

(02) Users programmed to use only pre-digested information.

(01) Congressmen don't have sophisticated educ. info. contents needs.

(01) Contradictions in Ed. Research results

(01) Voc Ed. contents better than others

(01) In general, info creation performance is bad.

DISPLAY 26

*G11c. What kinds of constraints (e.g., organizational, political) must you accommodate in your plans?*

| FREQ | |
|---|---|
| (17) | Financial Resources Limits |
| (10) | No answer, can't answer, not specified |
| (10) | No, none, nothing |
| (10) | Government Defined Scope |
| (07) | Staff Size Limits |
| (03) | Board of Directors |
| (03) | Cooperating, not competing with other similar groups |
| (02) | Commission |
| (02) | Council |
| (02) | CC Merit System |
| (02) | Not showing Favoritism |
| (01) | Physical Space Limits |
| (01) | Philosophical |

DISPLAY 27

*G12. What outside factors are likely to have an impact on your role in providing education information in the future? (Effect on fate control implied: Positive, Negative, Mixed)*

FREQ

(15) Federal Ed. Info. funding policies--N
(07) State Political Considerations--N
(05) Economically depressed national situation--N
(04) Competitive peer cooperation dilemma--N
(04) User Response and Receptivity--M
(03) Change in more emphasis on management, governance--M
(03) Costs increase for materials--N
(03) Collapse of Federal Sponsoring Agency--N
(03) Collapse of Retrieval Service they use--N
(03) Competitive replacement by larger, state-level units--N
(03) Tax bases for education--N
(03) General trends in Info. Science Field--P
(02) No, none, nothing
(02) Change in new forms post-secondary education--M
(02) Commitment of University Sponsor--N
(02) Competitive evaluation results from Federal Agencies--N
(02) Shift from FEA to SEA sponsorship will narrow--N
(02) Innovations in Ed. Info Usage--P
(01) No answer, can't answer, not specified
(01) Change in educational media--P
(01) Change in primary literature--M
(01) Change in school enrollment demographic trends--N
(01) Cost increase for postage--N
(01) Cost increase for telephone--N
(01) Collapse of ERIC system--N
(01) School budgets for materials--N
(01) School district finance unreliability--N
(01) Increase in Survey Research Work--P
(01) Lobbying and parent advocate groups--P
(01) Market Research Results--P
(01) Data source cooperativeness--N
(01) Freedom and protection of information legislation--N
(01) Top down pressures to hire unqualified--N
(01) Unionization of college personnel--N
(01) Increased political conservatism will narrow--N
(01) New legislation may generate info needs--P
(01) Self-sufficiency of school districts will narrow--N
(01) Sup. Pub. Inst. elected; attitude crucial--N
(01) Legislative information on-line--P

DISPLAY 28

*G13. Do you know of any technological innovations that might be expected to impact on your activities over the next 5 to 10 years? (E.g., on-line retrieval, mass storage.)*

| FREQ | |
|---|---|
| (16) | On-line Info Retrieval |
| (10) | Extensive On-line Networks |
| (09) | No, none, nothing |
| (04) | No answer, can't answer, not specified |
| (04) | Micro and Minicomputer applications |
| (04) | Closed circuit cable TV |
| (03) | Remote access audio-visual programs |
| (02) | Don't know, can't recall |
| (02) | Computer output to microfiche |
| (02) | Improved Fiche Hard-copy printers |
| (02) | Improved Fiche readers |
| (02) | Teletransmission of Fiche |
| (02) | Faster transmission rates |
| (02) | Random Access Video Displays |
| (02) | TV-linked computer printouts |
| (01) | Support for student calculation tasks |
| (01) | Fact books Fiche-stored |
| (01) | Fiche-based graphic displays |
| (01) | Microfiche storage |
| (01) | Cheaper print equipment |
| (01) | Microcomputer composing typewriters |
| (01) | Printing media innovations |
| (01) | Index of Information Systems |
| (01) | Operations Research |
| (01) | Centralized document repositories |
| (01) | Cheap mini-terminals |
| (01) | Faster terminals (on printout) |
| (01) | Mature time-sharing |
| (01) | On-line Input to data banks |
| (01) | Telecopied hard copy backup |
| (01) | Auditorium TV Projection Systems |
| (01) | Color TV |
| (01) | Computer output via TV |
| (01) | Video cassettes, disks, tapes |

DISPLAY 29

*G14. Do you know of any technological innovations that might be expected to impact on education information as seen by the end user? (E.g., two-way cable television.)*

| FREQ | |
|---|---|
| (10) | On-line Info Retrieval |
| (08) | No, none, nothing |
| (05) | No answer, can't answer, not specified |
| (04) | Extensive On-line Networks |
| (04) | Telecopied hard copy backup |
| (04) | Closed circuit cable TV |
| (03) | Improved Fiche readers |
| (03) | Microfiche storage |
| (03) | Random Access Video Displays |
| (02) | Don't know, can't recall |
| (02) | Support for student calculation tasks |
| (02) | Improved Fiche Hard-copy printers |
| (02) | Teletransmission of Fiche |
| (02) | Centralized document repositories |
| (02) | Cheap mini-terminals |
| (02) | Computer output via TV |
| (02) | TV-linked computer printouts |
| (02) | Videocassettes, disks, tapes |
| (01) | Improved CAI |
| (01) | Micro and Minicomputer applications |
| (01) | Fiche-based graphic displays |
| (01) | Holographic storage |
| (01) | Cheaper equipment |
| (01) | Diffusion, Linking Technology |
| (01) | Management modeling |
| (01) | Man-power forecasting |
| (01) | Faster transmission rates |
| (01) | Remote access audio-visual programs |
| (01) | Auditorium TV Projection Systems |

DISPLAY 30

*G15. How many information sources are similar to yours; in U.S.?; in other countries?*

IN U.S.

| FREQ | |
|---|---|
| (03) | No answer |
| (12) | No, none, nothing |
| (10) | 1 |
| (04) | 2 |
| (02) | Rarely |
| (02) | 4 |
| (01) | 6 |
| (01) | 11 |
| (01) | 13 |
| (03) | 15 |
| (02) | 16 |
| (01) | 18 |
| (01) | 19 |
| (03) | 20 |
| (01) | 25 |
| (02) | 30 |
| (01) | 33 |
| (03) | 50 |
| (01) | 56 |

IN OTHER COUNTRIES

| FREQ | |
|---|---|
| (05) | Don't know |
| (32) | No answer |
| (01) | No, none, nothing |
| (08) | 1 |
| (02) | 2 |
| (01) | 3 |
| (01) | 4 |
| (01) | 6 |
| (01) | 7 |
| (01) | 29 |
| (01) | 50 |

DISPLAY 31

*G15. How are they similar?*

| FREQ | |
|---|---|
| (05) | Local service area |
| (04) | Same data base contents |
| (04) | Nationwide service area |
| (04) | Computer search technical functions |
| (04) | Clearinghouse type-names |
| (03) | Regional service area |
| (03) | Larger computer network technical functions |
| (03) | One or more similar components technical functions |
| (03) | Service Agencies type-names |
| (03) | State Facilitator Projects type-names |
| (03) | State Resource Centers type-names |
| (02) | Higher education user audience |
| (02) | Education data base contents |
| (02) | ERIC data base contents |
| (02) | State-funded funding source |
| (02) | Search technical functions |
| (02) | R&D lab type-names |
| (01) | High level user audience |
| (01) | None with similar collection contents |
| (01) | Private non-profit funding source |
| (01) | School-financed funding source |
| (01) | Texas service area |
| (01) | Wide-spread service area |
| (01) | Blend of diffusion, process utility technical functions |
| (01) | Citations, abstract technical functions |
| (01) | None with similar dissemination pattern technical functions |
| (01) | Tape copying technical functions |
| (01) | Computer center type-names |
| (01) | Education service center type-names |
| (01) | Resource Coordinating Unit type-names |
| (01) | Teacher Centers type-names |
| (01) | Data Stores type-names |

DISPLAY 32

*G16a. What types of organizations in education information do you communicate with? What is the nature of the communication? (E.g., informal meetings, regularly scheduled meetings, letters, telephone calls, etc.) What is the purpose?*

| FREQ | Organization types communicated with: |
|---|---|
| (16) | State education agencies |
| (15) | Federal agencies |
| (11) | ERIC and ERIC Clearinghouses |
| (10) | Education information centers, literature search services |
| (10) | National education associations, societies |
| (09) | State-level associations |
| (08) | National professional associations, labor unions |
| (07) | Colleges and universities |
| (06) | Educational labs and R & D Centers |
| (05) | Local schools |
| (05) | National commissions |
| (05) | National conferences |
| (05) | National library and information associations |
| (05) | Other national centers and clearinghouses |
| (04) | College and university libraries |
| (04) | Curriculum, instructional materials centers |
| (04) | Local education agencies |
| (04) | Private non-profit organizations |
| (04) | Regional associations |
| (03) | State program directors |
| (02) | No, none, nothing |
| (02) | Consortia, networks |
| (02) | Private for-profit organizations |
| (01) | Associations of states (i.e., made up of states or state-level organizations or officials) |
| (01) | Library of Congress and national libraries |
| (01) | Public libraries |

DISPLAY 32

G16a. (Continued)

| FREQ | Types of Communications |
|---|---|
| (21) | Informal meetings |
| (21) | Regularly scheduled meetings |
| (20) | Telephone calls |
| (17) | Correspondence |
| (11) | No answer, can't answer, not specified |
| (04) | Workshops |
| (02) | Talks, presentations, speeches |
| (01) | Conventions |
| (01) | Demonstrations |
| (01) | Exhibits |
| (01) | National seminars |

| | Purposes of communications |
|---|---|
| (17) | Information sharing |
| (15) | No answer, can't answer, not specified |
| (10) | Coordination |
| (10) | Planning |
| (08) | Public relations, marketing |
| (07) | Information seeking |
| (06) | Answering questions, providing information |
| (06) | Needs assessment, getting feedback |
| (05) | Consultant |
| (05) | Evaluation |
| (05) | Training assistance |
| (04) | Locating, checking on materials |
| (03) | Increase awareness |
| (03) | Staying abreast |

DISPLAY 33

*G16b. Do you try to plan and/or coordinate with any of these organizations to improve information in education? With what organizations? What are the benefits from such coordination?*

FREQ

(29) Yes
(13) No, none, nothing
(07) No answer, can't answer, not specified
(04) Rarely

Organization types

(11) No answer, can't answer, not specified
(04) Local education agencies
(03) ERIC and ERIC Clearinghouses
(03) Local schools
(02) National education associations, societies
(02) National library and information associations
(02) Sponsoring Organization
(01) Associations of states (i.e., made up of states or state-level organizations or officials)
(01) College and university libraries
(01) Consortia, networks
(01) Education information centers, literature search services
(01) Federal agencies
(01) Library of Congress and national libraries
(01) Media, AV centers
(01) National professional associations, labor unions
(01) Regional associations
(01) State education agencies
(01) State-level associations

Types of coordination

(06) No answer, can't answer, not specified
(06) Coordinate product development
(06) Service to users, training of users
(03) Avoiding duplication of effort
(03) Reciprocal information resource sharing
(02) Coordination of members
(02) Joint conferences
(02) Materials evaluation

DISPLAY 33 (Continued)

| FREQ | |
|---|---|
| (02) | Sharing techniques, technical development, experiences |
| (01) | Assistance in product dissemination |
| (01) | Ensuring comprehensiveness |
| (01) | Joint publications |
| (01) | Setting standards |
| (01) | Setting Priorities |

DISPLAY 34

*G17a. Can you think of any areas of coverage in education information where there is an overlap or a duplication of effort?*

FREQ

(07) No answer, can't answer, not specified
(04) Don't know, can't recall
(04) CEC Information Services
(04) A & I Services, products information storage
(04) Enrollment, finance, statistics information storage
(03) Yes
(03) Funding Career Education Definitions
(02) No, none, nothing
(02) DATRIX (doctoral dissertations) information services
(02) State Ed. Info. Exchange, referral services
(02) ERIC File Partitioning information services
(02) Provisions of Computer Search Services
(02) Curriculum Materials Information Storage
(02) Primary literature, journals information storage
(02) Teacher Education Modules
(02) Locally produced video-tapes
(02) Ed. Index CIJE Studies
(02) Federal Agency Studies
(01) Rarely
(01) Primarily, modal
(01) Stop worrying about duplication
(01) Funding exceptionality groupings
(01) Funding migrant groupings
(01) CEC information services
(01) NIMIS information services
(01) NTIS information services
(01) Information Group Sponsors
(01) Languages
(01) Programmed reading guides
(01) National-Regional
(01) U.S. Govt.--private sector
(01) No implementations, just repetition studies
(01) Special-General Ed. studies
(01) Local Ed. Project studies

DISPLAY 35

G18a. *People generally agree that some level of cooperation among resources is important in assuring that education information needs are met by as balanced a system as possible. What type of cooperation would you recommend to alleviate or avoid overlaps and gaps in coverage, as well as to improve the provision of education information?*

FREQ

(15) Better coordinate communications improvement
(09) Increase incentives for cooperation, non-competition
(07) No answer, can't answer, not specified
(05) Evaluate EIRs, assign specializations to best
(05) Better coordinate face-to-face conferencing
(05) Better coordinate govt. agencies, programs and funding dupl.
(05) Better coordinate large data file dupl.
(05) Better coordinate long-range planning, continuity, less model change
(05) Improve standards of data collection, analysis, reporting
(04) Overlap o.k., competition rules
(04) Improve information product and service visibility
(03) Better coordinate abstracting and indexing services dupl.
(03) Improve training of users to seek, use information
(02) Don't know, can't recall
(02) Better coordinate ARM-ERIC Career Education
(02) Increase Org. power, will, time to force cooperation
(02) Better coordinate Search Services File dupl.
(02) Improve ERIC Coverage of Practitioner Needs
(02) Set Shared Human Resources Files
(01) Better coordinate computer-computer conferencing
(01) Improve ERIC coverage of Health, Phys. Ed.
(01) Improve ERIC coverage of States Materials
(01) Improve search and reference referral capabilities
(01) Set Centralized Serials Data Files
(01) Set up National Library of Education plus Regionals
(01) Set up Regional Centers
(01) Set up Research Early Warning Files
(01) Set up strong SIG ASIS for Ed. Info.
(01) Set up subcommittee on Ed. Statistics Data
(01) Set up University Film Consortium
(01) Set up Referral Coordination
(01) Set up National Materials Storehouse

DISPLAY 36

*G18b. At what levels should this cooperation be coordinated?*

| FREQ | |
|---|---|
| (22) | National, Federal |
| (09) | No answer, can't answer, not specified |
| (07) | District-State |
| (06) | All |
| (05) | States--National |
| (04) | High, Macro |
| (03) | ERIC Clearinghouses |
| (03) | Agencies not Federal |
| (03) | Local-District |
| (02) | Regional |
| (02) | Grass Roots |
| (01) | No, none, nothing |
| (01) | Institutions |
| (01) | Private Companies |

DISPLAY 37

*G17b. Can you think of any areas where the coverage of education information is not adequate?*

| FREQ | |
|---|---|
| (09) | No answer, can't answer, not specified |
| (07) | Statistics, General, Enrollment, Funding |
| (04) | Innovative Programs |
| (04) | Teaching Materials (classroom) |
| (03) | Education Materials Evaluations |
| (03) | Statistics; current |
| (03) | Teacher Education |
| (02) | Don't know, can't recall |
| (02) | ERIC weak areas |
| (02) | Fine Arts and Music |
| (02) | How to find education information |
| (02) | New Projects underway |
| (02) | State Legislation Information |
| (02) | Statistics; student finance patterns |
| (02) | Teaching Practices |
| (02) | Handicapped Information |
| (02) | Gifted Programs |
| (01) | Yes |
| (01) | African History--Africans in U.S. |
| (01) | Career Education Curriculum Materials |
| (01) | Cosmetology |
| (01) | Crucial issues, negotiations |
| (01) | Current Events |
| (01) | Curriculum Materials Descriptors-qualifiers |
| (01) | Education Information Use Studies |
| (01) | ERIC Articulation with Information Services |
| (01) | Indexing, better |
| (01) | Learning difficulties to solutions |
| (01) | Legal Information-Legislative Information |
| (01) | Medical Education |
| (01) | Metric System |
| (01) | Minority student--classroom interaction |
| (01) | Physical Education |
| (01) | Regulations codifications |
| (01) | Statistics; costs to degree |
| (01) | Statistics; costs to handicapped education |
| (01) | Statistics; fates of education graduates |
| (01) | Statistics; number of handicapped |
| (01) | Training for school administrators |
| (01) | Uniform standards information |

DISPLAY 37 (Continued)

| FREQ | |
|---|---|
| (01) | Vocabulary Common Definition in Education |
| (01) | Education Information Delivery |
| (01) | Promising Practices |
| (01) | Education Personnel Statistics |
| (01) | Utilization of Materials |
| (01) | Economical Movies |
| (01) | Civil Rights |
| (01) | Post-Secondary Education |

DISPLAY 38

*G20. What ideas or thoughts do you have about ways to provide people in the field of education with more timely, accessible, and relevant information?*

| FREQ | |
|---|---|
| (19) | Linkage, intermediation: personal interaction, user contact, repackaging, synthesizing, needs assessment, PR for information, improve access. |
| (13) | Users: user education, awareness, user effort, sophistication, early training, sharing among using orgs., more incentives for information use, change info-seeking behavior. |
| (10) | No answer, can't answer, not specified |
| (10) | Information generation: different media, more relevant and capable research, evaluation/analysis of materials, shorter research-to-publication lag. |
| (09) | Resources, information services: sharing, cooperation, better tools, faster response, SDI, more services, improved data bases, better information technology. |
| (08) | Finances: more money, cheaper computer access, higher national budget priority, more long-term funding, more accountability. |
| (02) | Don't know, can't recall |

DISPLAY 39

*G2l. What do you consider to be the major types of education information resources?*

| FREQ | | FREQ | |
|---|---|---|---|
| (13) | ERIC | (01) | Catalogs, publisher |
| (11) | No answer, can't answer | (01) | Computer tapes |
| (11) | Word-of-mouth sharing | (01) | Facilities information |
| (09) | Journals | (01) | Films |
| (07) | Personal experiences | (01) | Microfiche |
| (07) | Libraries | (01) | Newspapers |
| (07) | Books, texts | (01) | Practitioner-oriented |
| (05) | In-service workshops | (01) | Program descriptions |
| (05) | Teachers | (01) | Reference tools |
| (04) | Don't know, can't recall | (01) | SDI |
| (04) | Conferences, speeches | (01) | ERS |
| (04) | Info Analysis Centers | (01) | NEA |
| (04) | R & D Centers | (01) | SFAs |
| (04) | On-line searching | (01) | USOE |
| (04) | Colleges, Universities | (01) | Networks |
| (04) | Professional orgs. | | |
| (03) | National Data Bases | | |
| (03) | Audio-visual | | |
| (03) | Curriculum | | |
| (03) | Periodicals | | |
| (03) | Printed Materials | | |
| (03) | Researcher oriented | | |
| (03) | Teacher centers | | |
| (03) | EICs | | |
| (02) | Not asked | | |
| (02) | Coordinators | | |
| (02) | Diffusion agents | | |
| (02) | Indexing services | | |
| (02) | Federal documents | | |
| (02) | Legislative and legal | | |
| (02) | State documents | | |
| (02) | Coordinating orgs. | | |
| (02) | Parent orgs. | | |
| (01) | Publisher salesmen | | |
| (01) | CAIN | | |
| (01) | Consortia | | |
| (01) | Documentation Centers | | |
| (01) | G.P.O. | | |
| (01) | NICEM | | |
| (01) | NIMIS | | |

DISPLAY 40A

*A1. Which of the formats for information in List A best characterize(s) your collection?*

FREQ

(35) Documents (i.e., other monographs such as technical reports, government documents or theses, that do not fall under standard bibliographic control)

(24) Journals (i.e., containing several articles in an issue)

(23) Books (i.e., formally published materials except compilations and directories, that normally fall under standard bibliographic control such as Library of Congress cataloging)

(21) Directories (i.e., lists of persons, places or things)

(18) Pamphlets and Brochures

(16) Compilations (e.g., conference proceedings or reprints of articles or papers issued in a single volume; a special case of a monograph)

(14) Trade catalogs

(09) Correspondence

(08) Notes and Manuscripts (includes unpublished drafts of reports)

(07) Administrative Records

(06) Graphics (e.g., maps, plans, pictures not maintained in a separate non-print materials collection)

(01) Information packages

(01) Learning activity packages

(01) Search outputs

(01) Guides to protocol materials

(01) Human resources

DISPLAY 40B

*B2. Which of the formats in List A are represented in your collection? About how many items do you have in each format? About how many items in each format are added to your collection each year?*

| FREQ | | FREQ | SIZE |
|---|---|---|---|
| (06) | Audiovisuals (i.e., materials that are meant to be both heard and seen, such as films, TV recordings, film strip/audio cassette combinations) | (03)<br>(02)<br>(01) | 1000 - 3000<br>3001 - 6000<br>100 - 500 |
| (04) | Audio Recordings (i.e., materials that are meant to be heard only) | (02)<br>(01)<br>(01) | 100 - 500<br>0 - 100<br>1000 - 3000 |
| (03) | Silent Visuals (i.e., materials that are meant to be seen only, such as slides, film strips, photographs) | (02)<br>(01) | 1000 - 3000<br>100 - 500 |
| (03) | Models and Manipulanda (i.e., materials that are three-dimensional and may be touched as well as viewed and heard) | (02)<br>(01) | 100 - 500<br>0 - 100 |
| (03) | Games and Simulations | (01)<br>(01)<br>(01) | 0 - 100<br>1000 - 3000<br>25,000 |
| (01) | Displays and Exhibits | (01) | 0 - 100 |

DISPLAY 40C

*C2. Which of the formats for information in List A best characterize(s) the file(s)?*

| FREQ | |
|---|---|
| (12) | Citations (i.e., bibliographic descriptions of information sources) |
| (05) | Statistical Data |
| (03) | Text (i.e., machine-readable version of printable materials) |
| (02) | No answer, can't answer, not specified |
| (02) | Lists (i.e., compilations of names, terms, parts, etc.) |

DISPLAY 41A

*A2. What time period does the collection cover?*

| FREQ | |
|---|---|
| (14) | 5-8 (Years modal, maximum) |
| (06) | Not applicable |
| (06) | 0-4 (Years modal, maximum) |
| (06) | 9-15 (Years modal, maximum) |
| (03) | Skewed to new with few old |
| (01) | No answer, can't answer, not specified |
| (01) | Archival and current separate |

DISPLAY 41C

*C7. What time period is represented in the file(s)?*

| FREQ | |
|---|---|
| (06) | 1965 onward |
| (05) | No answer, can't answer, not specified |
| (03) | 1967 onward |
| (01) | 1950 onward |
| (01) | 1960 onward |
| (01) | 1970 onward |

DISPLAY 42A

*A3. What is the size of the collection?*

| FREQ | SIZE | FREQ | SPECIFICALLY |
|---|---|---|---|
| (08) | 10.1 - 25K | (02) | Exclusive of ERIC |
| (06) | No answer, can't answer, not specified | | |
| (05) | To .999K | (01) | Exclusive of ERIC |
| (05) | More than 100K | (02)<br>(01) | ERIC<br>Exclusive of ERIC |
| (04) | 3.1 - 5K | (02) | Exclusive of ERIC |
| (03) | 5.1 - 10K | (01) | Exclusive of ERIC |
| (03) | 25.1 - 50K | (01) | Exclusive of ERIC |
| (01) | Not applicable | | |
| (01) | 1 - 3K | (01) | Exclusive of ERIC |
| (01) | 50.1 - 100K | | |

DISPLAY 42C

*C6a. What is the size of the file(s)? Number of records?*

FREQ

| | |
|---|---|
| (03) | 201 - 500K |
| (03) | ERIC |
| (02) | No answer, can't answer, not specified |
| (02) | 0 - 5K |
| (02) | 11 - 25K |
| (02) | 51 - 100K |
| (01) | 6 - 10K |
| (01) | 101 - 200K |
| (01) | 3K institutions in each file |
| (01) | It varies |

DISPLAY 43A

*A4. What is the net rate of growth for the collection?*

FREQ

(04) No answer, can't answer, not specified
(04) 501 - 1K Annually
(03) Not applicable
(03) Growth--Purge Approximately Equal
(03) 0 - 100 Annually
(03) 8K - 15K Annually
(02) Don't know, can't recall
(02) ERIC growth rate
(02) 101 - 500 Annually
(02) 1K - 2K Annually
(02) 2K - 5K Annually
(02) 15K - 25K Annually
(01) Stable
(01) Will increase
(01) 5K - 8K Annually
(01) 25K - 50K Annually
(01) 50K - plus Annually

DISPLAY 43B

*B2. Which of the formats in List A are represented in your collection? About how many items do you have in each format? About how many items in each format are added to your collection each year?*

FREQ

| | |
|---|---|
| 23 | No answer, can't answer, not specified |
| 06 | Variable: sometimes, occasionally, informally, maybe |
| 05 | 0 - 100 |
| 04 | 1000 - 3000 |

DISPLAY 43C

*C8. What is the rate of growth for the file(s)?*

| FREQ | |
|---|---|
| (05) | No answer, can't answer, not specified |
| (02) | Variable: sometimes, occasionally, informally, maybe |
| (02) | 25 - 30K/Yr |
| (02) | ERIC |
| (01) | Don't know, can't recall |
| (01) | Just Starting |
| (01) | Very Slow |
| (01) | Will increase later |
| (01) | .1K/Yr |
| (01) | .5K/Yr |
| (01) | 1.0 - 1.8K/Yr |

DISPLAY 44A

*A5. Which of the functions in List B best characterize(s) the intended purpose(s) for which the material in the collection is used?*

| FREQ | % | |
|---|---|---|
| (29) | 78% | Research Findings (i.e., presents results of any kind of research project) |
| (25) | 67% | Explanations and Descriptions (e.g., manuals, procedural guides) |
| (22) | 59% | Evaluations (i.e., comparative analyses of equipment, procedures or techniques) |
| (22) | 59% | Ready Reference (i.e., used to answer simple questions about persons, places, things, etc.) |
| (20) | 54% | Analyses, Syntheses, Summaries and Digest |
| (19) | 51% | Theory, Concepts, or Philosophy |
| (18) | 48% | Reviews (i.e., evaluative descriptions of other documents) |
| (17) | 46% | Texts (i.e., used to impart skills or special knowledge) |
| (16) | 43% | Administration (i.e., used in conducting the daily operations of an organization) |
| (16) | 43% | Examples, Samples, Transferable (i.e., may be incorporated in whole or in part in generating new materials) |
| (15) | 40% | Memoranda, Working Papers, Drafts (i.e., used to record or communicate information for the convenience of an individual or the persons in a working group) |
| (14) | 38% | Planning and Budgeting (e.g., forecasts, statistical and financial analyses) |
| (13) | 35% | Laws and Statutes |
| (11) | 30% | Rules and Regulations |
| (10) | 27% | News, Announcements |
| (08) | 22% | Marketing (i.e., used to sell an idea, product, or service) |
| (01) | Not applicable | |

DISPLAY 44B

*B5. Which of the functions in List B best characterize(s) the intended purpose(s) for which the material in the collection is used?*

| FREQ | % | |
|---|---|---|
| (09) | 100% | Classroom Instruction (i.e., intended for use in teaching, but represented here as material for a teacher to become familiar with prior to introducing it into the classroom) |
| (07) | 78% | Examples, samples, transferable (i.e., may be incorporated in part in generating new materials or in understanding the information being conveyed) |
| (07) | 78% | Conveyance of Sensory Images to persons with perceptual handicaps |
| (06) | 67% | Evaluations (i.e., comparative analyses of equipment, procedures or techniques) |
| (06) | 67% | Training of practitioners (i.e., for teachers, managers, etc.) |
| (05) | 55% | Training of researchers |
| (05) | 55% | Self-study and Practice (e.g., language materials) |
| (04) | 49% | Reviews (i.e., evaluative descriptions of other information materials) |
| (04) | 49% | Explanations and Descriptions |
| (04) | 49% | Marketing (i.e., used to sell an idea, product, or service) |
| (03) | 33% | Research Findings (i.e., presents results of any kind of research project) |
| (02) | 22% | Theory, Concepts, or Philosophy |
| (02) | 22% | Analyses, syntheses, summaries, and digests |
| (02) | 22% | News and Announcements |
| (01) | 11% | Administration (i.e., used in conducting the daily operations of an organization) |

DISPLAY 44C

*C3. Which of the functions in List B best characterize(s) the intended purpose(s) for which the files are used?*

| FREQ | % | |
|---|---|---|
| (13) | 76% | Retrieval (i.e., obtaining a record from a file) |
| (07) | 41% | Publication Production (e.g., books, indexes, catalogs) |
| (07) | 41% | Ready Reference (i.e., obtaining a name, number, or other value from a file) |
| (06) | 35% | Report Generation (e.g., statistical or business reports) |
| (03) | 18% | Analysis (e.g., measurement of central tendency, linear equations) |
| (03) | 18% | Training (e.g., computer-assisted instruction) |
| (02) | 12% | Status keeping (e.g., inventory control, reservations, film booking) |
| (01) | 06% | No answer, can't answer, not specified |
| (01) | 06% | Administration (i.e., used in conducting the daily operations of an organization) |
| (01) | 06% | Displays (i.e., presentations of information in graphic form) |

DISPLAY 45A

*A6. Do you have a subject focus? If so, which subjects do you emphasize or focus on?*

| FREQ | |
|---|---|
| (18) | No, none. |
| (05) | Career, vocational education |
| (03) | Elementary & Secondary administration and management |
| (03) | Special education, handicapped and gifted |
| (02) | Adult education |
| (02) | Legislation, legislative issues |
| (01) | Not applicable |
| (01) | Civil rights |
| (01) | Curriculum development |
| (01) | Education finance |
| (01) | Ethnic minorities and women |
| (01) | Higher Education administration and management |
| (01) | Higher education statistics |
| (01) | Instructional materials, equipment |
| (01) | Process skills and innovative practices |
| (01) | Teacher training |

DISPLAY 45B

*B4. Do you have a subject focus? If so, which subjects do you emphasize or focus on?*

| FREQ | |
|---|---|
| (04) | No, none. |
| (04) | Special education |
| (01) | Teacher education |

DISPLAY 45C

*C4. Do you have a subject focus? If so, what subjects are represented to a significant degree in the content of the file(s)?*

| FREQ | |
|---|---|
| (04) | No, none. |
| (02) | Education |
| (02) | Vocational Education materials |
| (01) | No answer, can't answer, not specified |
| (01) | Cross-national aggregate data |
| (01) | Education, Special |
| (01) | Education Statistics |
| (01) | Elementary and Secondary Education |
| (01) | ERIC |
| (01) | Handicapping conditions |
| (01) | Higher Education Institute |
| (01) | Historical census |
| (01) | Instructional Media |
| (01) | Psychology |
| (01) | Public Opinion |
| (01) | Pupil Instruction Curriculum |
| (01) | Schools, Enrollments |
| (01) | Students and Teachers |
| (01) | Supervisory Training |
| (01) | Teacher Training |

DISPLAY 46A

*A7a. For what subjects or types of information do you tend to have requests that you cannot fill?*

| FREQ | |
|---|---|
| (07) | No, none, nothing |
| (05) | No answer, can't answer, not specified |
| (05) | Local school data |
| (03) | Not applicable |
| (02) | Academic subject matter |
| (02) | State data, statistics |
| (02) | Career, job availability information |
| (02) | Instructional materials |
| (02) | Materials too expensive for user |
| (01) | Project "how-to" information |
| (01) | Census information |
| (01) | Clean or appropriately analyzed data |
| (01) | Data by race |
| (01) | Financial data |
| (01) | Higher education statistics |
| (01) | Cost-related information |
| (01) | Funding sources |
| (01) | Curriculum and program information |
| (01) | Early childhood |
| (01) | Higher Education |
| (01) | Collective bargaining |
| (01) | State codes |
| (01) | Business management |
| (01) | Policy making |
| (01) | Student school placement |
| (01) | Human resource information |
| (01) | Professional information |
| (01) | Unpublished research |
| (01) | Nonexistent information |
| (01) | Requests with no solutions |
| (01) | Requests from non-members |
| (01) | Reading |
| (01) | "Cutting edge" questions--very current information |
| (01) | Civil rights hearings |

DISPLAY 46B

*B3a. Are there any types of materials (subject, function/level, format) for which you tend to have requests that you cannot fill, either because you do not have them in your collection or because they are not available at all?*

FREQ

(03) No, none, nothing

(02) Yes

(01) No answer, can't answer, not specified

(01) Not applicable

(01) Format--films

(01) Function/level--educational overview preparation materials

(01) Subject--higher ed. or medical ed., others, or elsewhere

DISPLAY 47A

*A7b. Where do you go for information to fill these requests?*

FREQ

(08) Not applicable

(05) No answer, can't answer, not specified

(05) Refer to/consult ERIC or ERIC Clearinghouses

(05) Refer to/consult other services, org.,--IES

(04) Refer to/consult professional and educational associations--NEA, NASB

(04) Refer to/consult State education department

(03) Call potentially knowledgeable people

(03) Refer to/consult the colleges and universities

(03) Refer to/consult Private/commercial orgs.--ETS, commercial publications

(03) Refer to/consult public or university libraries

(02) Refer to/consult feds--USEO, NIE, NSF, NCES

(02) Refer to/consult State Library

(01) Don't do

(01) Check reviews and syntheses

(01) Refer to/consult Dissertation Abstracts

(01) Refer to/consult Regional Labs

(01) Use interlibrary loan

DISPLAY 47B

*B3b. How do you handle these requests?*

| FREQ | |
|---|---|
| (03) | Not applicable |
| (02) | Don't handle, turn away |
| (02) | Refer to state agencies, or elsewhere |
| (01) | No answer, can't answer, not specified |
| (01) | Respond to all requests |

DISPLAY 48A

*A8. How are materials acquired for your collection: Do you acquire materials based on requests from users? Do you receive some materials automatically? What rules, however informal, guide your selection?*

| FREQ | |
|---|---|
| (20) | Automatically received--from states, ERIC, federally-funded research, journals, standing orders |
| (15) | User requests--direct requests or identified in the process of responding to requests |
| (11) | Relevance, current or anticipated, to users |
| (07) | Current awareness bibliographies, newsletters, booklists, reviews |
| (06) | Unsolicited documents |
| (05) | Selected by librarian or content specialist |
| (04) | Referrals from contacts |
| (04) | Staff requests |
| (04) | Scope of the collection, service |
| (03) | Conventions and conferences |
| (03) | Solicited from field, professional organizations |
| (02) | Produced inhouse |
| (02) | Scanning the literature |
| (01) | Advisory groups |
| (01) | Book salesmen |
| (01) | Input from linkers, intermediaries |
| (01) | Site visits |
| (01) | State guidelines |

DISPLAY 48B

*B6. How do you identify materials to be acquired for your collection? That is, do you use catalogs, indexes, advertisements, user suggestions, etc.*

| FREQ | |
|---|---|
| (03) | Advisory groups, review boards |
| (03) | Catalogs |
| (02) | Advertisements |
| (02) | Sales representatives, publisher visits |
| (02) | User suggestions |
| (01) | No answer, can't answer, not specified |
| (01) | Develop materials rather than acquire |
| (01) | Indexes |
| (01) | Not responsible for materials selection |
| (01) | Other school districts |
| (01) | Requests by teachers/staff |
| (01) | SEA |

DISPLAY 48C

*C11. How are data acquired for your file(s)? Do you acquire data based on requests from users? Do you receive some data automatically? What rules, however informal, guide your selection?*

FREQ

(05) User Need Requests
(04) No answer, can't answer, not specified
(03) ERIC
(02) Catalogs
(02) Producers/distributors, from
(01) Don't do
(01) Bureau Adult Education, through
(01) CIJE
(01) Clearinghouse, through
(01) Congressional Mandate laws
(01) Library of Congress
(01) Publisher Notifications
(01) Purchase
(01) Staff Judgments
(01) Subscriptions
(01) Suppliers, through
(01) Surveys by ACE, NCES, HEGIS

DISPLAY 49A

*A9. If you screen some or all material for acquisition, can you explain what criteria you use? Do you find these criteria adequate?*

FREQ

(11) For inclusion, user relevance.
(08) For inclusion, subject area.
(06) For inclusion, current, timely, up-to-date.
(06) For inclusion, staff judgment, input or judgment of reviews, experts.
(06) For inclusion, general usefulness, need.
(04) For inclusion, applicability to org's activities, projects.
(04) For inclusion, cost.
(03) Not applicable
(03) Don't do
(03) For inclusion, grade level applicability.
(03) For inclusion, physical reproducibility.
(03) For inclusion, quality of data, information.
(02) Rarely
(02) For inclusion, format.
(02) For exclusion, accessibility, coverage by other sources.
(02) For exclusion, limited scope
(02) For exclusion, redundant data, information.
(01) For inclusion, accuracy.
(01) For inclusion, aesthetics.
(01) For inclusion, innovativeness.
(01) For inclusion, pragmatic, implemented materials.
(01) For inclusion, process-orientation.
(01) For inclusion, relevance to educational purposes.
(01) For inclusion, type of medium.
(01) For exclusion, classroom materials.
(01) For exclusion, historical information.
(01) For exclusion, theoretical, research orientation.

DISPLAY 49B

*B7. What criteria do you use in selecting materials for your collection? What guidelines do you use, generally, to decide that something is appropriate or that something is <u>not</u> appropriate for your collection? Do you find these criteria adequate?*

| FREQ | |
|---|---|
| (03) | Not applicable |
| (02) | Cost |
| (02) | Expressed need of districts |
| (02) | Staff opinions |
| (01) | Preview of materials |
| (01) | Product reviews |
| (01) | Subjective judgment |
| (01) | Use patterns |

DISPLAY 49C

*C12. If you screen some or all inputs, can you explain what criteria you use? Do you find these criteria adequate?*

| FREQ | |
|---|---|
| (05) | No answer, can't answer, not specified |
| (03) | Don't do |
| (02) | Consistency checks against prior years |
| (02) | Done by ERIC, CIJE |
| (02) | Look for logical flaws |
| (01) | No, none, nothing |
| (01) | All submitted by USOE |
| (01) | Avoid Duplication |
| (01) | No Feature Films |
| (01) | No reviews, bibliographies, critiques |
| (01) | Screen inadequate abstracts |
| (01) | Scientifically respectable |

DISPLAY 50C

*C14. What controls are employed to assure accuracy of the data?*

| FREQ | |
|---|---|
| (04) | No answer, can't answer, not specified |
| (03) | No, none, nothing |
| (03) | Check, send poor materials back to producers |
| (03) | Reviews by professional |
| (02) | Quality control (in-house) of abstracts |
| (02) | Review by editorial consultant |
| (02) | Special centers who produce materials check it |
| (01) | Don't know, can't recall |
| (01) | Evaluations of organizations producing inputs |
| (01) | Imposed by NCES |
| (01) | Training (highly structured) for coders |

DISPLAY 51A

*A10a. Do you weed out material periodically?*

FREQ

(19) Yes

(11) No, none, nothing

(03) Not applicable

(03) Variable: sometimes, occasionally, informally, maybe

(01) Not asked

*A10b. How often?*

FREQ

(14) Not applicable

(06) No answer, can't answer, not specified

(04) Continuously

(04) Annually

(03) Sporadically

(03) Semi-annually

(01) Not asked

(01) Frequently

DISPLAY 51B

*B8. Do you weed out material periodically? How often? What criteria do you use for determining what to discard and what to retain? What do you do with the materials that you discard?*

| FREQ | |
|---|---|
| (03) | Not applicable |
| (03) | Depends on age, up-to-dateness |
| (03) | Depends on physical condition |
| (02) | No, none, nothing |
| (02) | Annually |
| (02) | Give away materials discarded |
| (01) | Yes |
| (01) | Not specified |
| (01) | Archive |
| (07) | Depends on use |

DISPLAY 51C

*C13. Do you delete records periodically? How often? What criteria do you use for determining what to discard and what to retain. What do you do with the records that you discard?*

| FREQ | |
|---|---|
| (08) | No, none, nothing |
| (04) | Some day may do |
| (02) | No answer, can't answer, not specified |
| (02) | Yes |
| (01) | Critiquers, (paid) review contents |
| (01) | Out of print |

DISPLAY 52A

*A10c. What criteria do you use for determining what to discard and what to retain?*

| FREQ | |
|---|---|
| (14) | Not applicable |
| (13) | Outdatedness, obsolescence |
| (06) | Non-use, lack of requests, lack of need |
| (03) | Replacement, revision |
| (03) | Topic relevance |
| (02) | No answer, can't answer, not specified |
| (02) | Quality, condition of material |
| (02) | Personal judgment |
| (01) | Not asked |
| (01) | Indexing, lack of |
| (01) | Recommendation of subject specialist |
| (01) | Redundancy with another source |
| (01) | Space, need for |

DISPLAY 53A

*A10d. What do you do with the materials that you discard?*

| FREQ | |
|---|---|
| (14) | Not applicable |
| (10) | No answer, can't answer, not specified |
| (05) | Destroyed, thrown away |
| (04) | Given to libraries |
| (03) | Given to individuals |
| (01) | Not asked |
| (01) | Archives, sent to |
| (01) | Given to colleges and universities |
| (01) | Given to general collection |
| (01) | Given to overseas institutions |
| (01) | Given to schools |
| (01) | Sent to depository |

DISPLAY 54C

*C15. What descriptive documentation exists for this file?*

| FREQ | |
|---|---|
| (10) | User Manual |
| (05) | Pamphlets, brochures |
| (04) | Code Book |
| (04) | Data Dictionary |
| (04) | Guide to Services |
| (04) | Thesaurus |
| (04) | Unpublished documents |
| (03) | Announcement publication |
| (03) | Technical Reports, J. Articles |
| (02) | No answer, can't answer, not specified |
| (02) | Manual |
| (01) | Rarely |
| (01) | Material published with AIM-ARM product |
| (01) | Slide and tape show |
| (01) | RIE |

DISPLAY 55C

*C16. What is the output mode of the file? (E.g., on-line, report generation)*

| FREQ | |
|---|---|
| (11) | Batch processing output (printer) |
| (10) | On-line |
| (04) | Report generation |
| (01) | No answer, can't answer, not specified |
| (01) | Catalogs |

DISPLAY 56A

*A11. What kinds of groups do you consider to be your primary target audience?*

| FREQ | | AVERAGE | FREQ | PERCENTAGE |
|---|---|---|---|---|
| (21) | Secondary School Practitioner | | (06) | Not specified |
| | | | (03) | 40% |
| | | | (02) | 10% |
| | | | (02) | 25% |
| | | | (02) | 30% |
| | | 43% | (02) | 35% |
| | | | (01) | 11% |
| | | | (01) | 20% |
| | | | (01) | 45% |
| | | | (01) | 80% |
| (20) | Elementary School Practitioner | | (05) | Not specified |
| | | | (03) | 40% |
| | | | (02) | 35% |
| | | | (01) | 10% |
| | | | (01) | 12% |
| | | | (01) | 25% |
| | | | (01) | 33% |
| | | 44% | (01) | 45% |
| | | | (01) | 50% |
| | | | (01) | 60% |
| | | | (01) | 66% |
| | | | (01) | 80% |
| | | | (01) | 95% |
| (20) | School District Staff | | (08) | Not specified |
| | | | (03) | 10% |
| | | | (02) | 3% |
| | | | (02) | 25% |
| | | | (01) | 4% |
| | | 17% | (01) | 5% |
| | | | (01) | 15% |
| | | | (01) | 18% |
| | | | (01) | 71% |

DISPLAY 56A (Continued)

| FREQ | | AVERAGE | FREQ | PERCENTAGE |
|---|---|---|---|---|
| (16) | State Education Agency Staff | | (04) | Not specified |
| | | | (02) | 3% |
| | | | (01) | Primarily, modal |
| | | | (01) | 2% |
| | | 16% | (01) | 4% |
| | | | (01) | 5% |
| | | | (01) | 9% |
| | | | (01) | 10% |
| | | | (01) | 20% |
| | | | (01) | 24% |
| | | | (01) | 45% |
| | | | (01) | 70% |
| (16) | Education Researchers and Developers | | (07) | Not specified |
| | | | (02) | 1% |
| | | | (02) | 10% |
| | | | (01) | 2% |
| | | 22% | (01) | 3% |
| | | | (01) | 5% |
| | | | (01) | 75% |
| | | | (01) | 90% |
| (12) | School Board Members and Staff | | (03) | 2% |
| | | | (02) | Not specified |
| | | | (01) | Rarely |
| | | | (01) | 3% |
| | | | (01) | 4% |
| | | 15% | (01) | 5% |
| | | | (01) | 20% |
| | | | (01) | 24% |
| | | | (01) | 70% |
| (09) | Postsecondary Education Staff | | (05) | Not specified |
| | | | (02) | 5% |
| | | | (01) | 1% |
| | | 8% | (01) | 20% |

Continued

DISPLAY 56B

*B9. What kinds of groups do you consider to be your primary target audience? Can you estimate how many users you have in each group?*

| FREQ | GROUPS | FREQ | NO. OF USERS |
|---|---|---|---|
| (06) | Elementary School Practitioner | (01) | 35 |
| | | (01) | 40 |
| | | (01) | 47 |
| | | (01) | 50 |
| | | (01) | 60 |
| | | (01) | 90 |
| (05) | Secondary School Practitioner | (01) | 20 |
| | | (01) | 30 |
| | | (01) | 35 |
| | | (01) | 47 |
| | | (01) | 50 |
| (02) | Faculty, Postsecondary Schools of Education | (01) | 3 |
| | | (01) | 70 |
| (01) | School District Staff | (01) | 4 |
| (01) | State Education Agency Staff | (01) | 4 |
| (01) | School Board Members and Staff | (01) | 4 |
| (01) | Other Postsecondary Education Faculty | (01) | 3 |
| (01) | Postsecondary Eduation Staff | (01) | 3 |
| (01) | Special Interest Groups | (01) | 3 |
| (01) | Distributors | (01) | 99 |
| (01) | Parents | (01) | 10 |
| (01) | University students | (01) | 84 |

DISPLAY 56B (Continued)

| FREQ | | AVERAGE | FREQ | PERCENTAGE |
|---|---|---|---|---|
| (08) | Legislators | | (01) | Not specified |
| | | | (01) | Rarely |
| | | | (01) | 1% |
| | | 29% | (01) | 2% |
| | | | (01) | 10% |
| | | | (01) | 25% |
| | | | (01) | 45% |
| | | | (01) | 90% |
| (07) | Special Interest Groups | | (02) | 2% |
| | | | (02) | 5% |
| | | 8% | (01) | 9% |
| | | | (01) | 25% |
| (06) | Faculty, Postsecondary Schools of Education | | (03) | Not specified |
| | | | (01) | 2% |
| | | 11% | (01) | 10% |
| | | | (01) | 20% |
| (04) | Other Postsecondary Education Staff | | (03) | Not specified |
| | | | (01) | 2% |
| (02) | Students (College, University) | | (01) | Not specified |
| | | | (01) | 90% |
| (02) | General Public | | (02) | 20% |
| (02) | Graduate Students | | (01) | 3% |
| | | | (01) | 30% |
| (02) | Parents, community groups | | (01) | 3% |
| | | | (01) | 5% |
| (02) | Volunteer groups | | (01) | 1% |
| | | | (01) | 4% |
| (01) | Counselors | | (01) | 10% |
| (01) | Federal Agencies | | (01) | Not specified |
| (01) | Intermediate Agency Staff | | (01) | 9% |
| (01) | Special Education Teacher Centers | | (01) | 1% |

DISPLAY 56C

*C17. What kinds of groups do you consider to be your primary target audience?*

| FREQ | |
|---|---|
| (10) | Elementary School Practitioners |
| (10) | Faculty, Postsecondary Schools of Education |
| (10) | Secondary School Practitioners |
| (10) | State Education Agency Staff |
| (09) | Education Researchers and Developers |
| (08) | Other Postsecondary Education Faculty |
| (08) | Postsecondary Education Staff |
| (08) | School District Staff |
| (05) | Legislators |
| (05) | School Board Members and Staff |
| (05) | Special Interest Groups |
| (03) | Students |
| (02) | Libraries, public |
| (02) | Psychologists |
| (01) | No answer, can't answer, not specified |
| (01) | Businessmen |
| (01) | Counselors |
| (01) | Educators |
| (01) | Handicapped pupils |
| (01) | Health people |
| (01) | Intermediate school system staff |
| (01) | Libraries, corporate |
| (01) | Local voc. ed. directors |
| (01) | Parents of handicapped |
| (01) | Penal institutions |
| (01) | Professors |
| (01) | PTA |
| (01) | State Research Coord. Units |
| (01) | State Schools Special Education |
| (01) | State Supervisors Occup. Ed. |
| (01) | State Voc. Ed. directors |

DISPLAY 57A

*A12. Do you have many other users in groups that are not considered to be in your target audience? Please estimate how many users you have in each of these groups.*

| FREQ | | FREQ | USERS |
|---|---|---|---|
| (11) | Faculty, Postsecondary Schools of Education | (04) | Not specified |
| | | (02) | 2 |
| | | (01) | 1 |
| | | (01) | 3 |
| | | (01) | 5 |
| | | (01) | 7 |
| | | (01) | 20 |
| (10) | Postsecondary Education Staff | (04) | Not specified |
| | | (02) | 2 |
| | | (02) | 4 |
| | | (02) | 5 |
| (09) | State Education Agency Staff | (02) | Not specified |
| | | (02) | 5 |
| | | (02) | 10 |
| | | (01) | 1 |
| | | (01) | 2 |
| | | (01) | 3 |
| (09) | Other Postsecondary Education Staff | (04) | Not specified |
| | | (02) | 1 |
| | | (02) | 4 |
| | | (01) | 5 |
| (09) | Education Researchers and Developers | (03) | Not specified |
| | | (02) | 1 |
| | | (02) | 2 |
| | | (01) | 4 |
| | | (01) | 5 |
| (08) | Legislators | (05) | Not specified |
| | | (01) | 3 |
| | | (01) | 5 |
| | | (01) | 9 |

(Continued)

DISPLAY 57A (Continued)

| FREQ | | FREQ | USER |
|---|---|---|---|
| (07) | None | | |
| (07) | Special Interest Groups | (04) | Not specified |
| | | (01) | 1 |
| | | (01) | 2 |
| | | (01) | 6 |
| (05) | School Board Members and Staff | (03) | Not specified |
| | | (02) | 5 |
| (04) | Elementary School Practitioner | (02) | Not specified |
| | | (01) | 10 |
| | | (01) | 55 |
| (03) | Secondary School Practitioner | (02) | Not specified |
| | | (01) | 1 |
| (03) | Graduate Students | (01) | 1 |
| | | (01) | 10 |
| | | (01) | 20 |
| (03) | Private Industry Firms, consultants | (02) | Not specified |
| | | (01) | 4 |
| (02) | School District Staff | (01) | Not specified |
| | | (01) | 1 |
| (02) | Students (college, university) | (01) | 4 |
| | | (01) | 15 |
| (02) | Parents, community groups | (01) | Not specified |
| | | (01) | 4 |
| (02) | Information services, disseminators | (01) | 2 |
| | | (01) | 4 |
| (01) | County Agencies | (01) | 1 |
| (01) | Education Policymakers | (01) | 5 |
| (01) | Media | (01) | Not specified |
| (01) | Professional Org., Assoc. | (01) | Not specified |
| (01) | Volunteer groups | (01) | 1 |
| (01) | Non-public school staff | (01) | Variable: sometimes, occasionally, informally |

DISPLAY 57B

*B10. Do you have many other users in groups that are not considered to be in your target audience? Please estimate how many users you have in each of these groups.*

| FREQ | | FREQ | NO. OF USERS |
|---|---|---|---|
| (04) | Faculty, Postsecondary Schools of Education | (02) | 5 |
| | | (01) | 2 |
| | | (01) | 20 |
| (03) | No, none, nothing | | |
| (03) | Special Interest Groups | (01) | 1 |
| | | (01) | 2 |
| | | (01) | 10 |
| (02) | Education Researchers and Developers | (01) | 1 |
| | | (01) | 3 |
| (01) | School District Staff | (01) | 4 |
| (01) | State Education Agency Staff | (01) | 10 |
| (01) | School Board Members and Staff | (01) | 2 |
| (01) | Legislators | (01) | 3 |
| (01) | Other Postsecondary Education Faculty | (01) | 5 |
| (01) | Postsecondary Education Staff | (01) | 4 |
| (01) | Reg. Spec. Ed. Materials Center | (01) | 10 |
| (01) | Parochial Schools | (01) | 1 |
| (01) | Businesses | (01) | 20 |

DISPLAY 58A

*A13a. What is the geographic area where your primary target audience is located?*

FREQ

(10) National
(10) State
(06) International
(06) Local
(05) Regional

DISPLAY 58B

*B11a. What is the geographic area where your primary target audience is located?*

FREQ

(03) National
(03) Regional
(02) State
(01) Local

DISPLAY 58C

*C19a. What is the geographic area where your primary target audience is located?*

FREQ

(06) State
(04) National
(03) Regional
(02) International
(01) No answer, can't answer, not specified
(01) Variable: sometimes, occasionally, informally, maybe
(01) Local

DISPLAY 59A

*A13b.* [*If narrower than national*] *What influence, if any, does your geographic location have on the nature or scope of your resource?*

FREQ

(15) Not applicable

(05) No, none, nothing

(05) Distances across service area

(03) Organizational setting or location (e.g., university, SEA)

(03) Other geographically proximate information resources

(03) Predominant industry (e.g., technological, governmental)

(02) Educational trends/concerns in the area

(02) Local history and legislation

(02) Ruralness/urbanness

(02) Scope (and nature) of target audience)

(01) Posture of the area towards progress

(01) Socio-economic make-up of area

DISPLAY 59B

*B11b.* [*If narrower than national*] *What influence, if any, does your geographic location have on the nature or scope of your resource?*

FREQ

(03) Not applicable

(02) Distances across service area

(01) No, none, nothing

(01) Local history and legislation

(01) Other geographically proximate information resources

(01) Predominant industry (e.g., technological, governmental)

(01) Ruralness/urbanness

DISPLAY 60A

*A14a. In your opinion, how useful do your target users consider your collection?*

| FREQ | USER REACTION | FREQ | EVIDENCE |
|---|---|---|---|
| (34) | Positive | (09) | Usage (level, repeat) |
| | | (09) | Surveys, feedback forms |
| | | (06) | No answer, can't answer, not specified |
| | | (05) | Feedback (letter, verbal) |
| | | (05) | Combinations of above |
| (01) | Not applicable | | |
| (01) | No, none, nothing | | |
| (01) | Mixed | (01) | Combinations of above |

DISPLAY 60B

*B12a. In your opinion, how useful do your target users consider your collection?*

| | | | |
|---|---|---|---|
| (09) | Positive | (05) | No answer, can't answer, not specified |
| | | (03) | Surveys, feedback forms |
| | | (01) | Usage (level, repeat) |

DISPLAY 60C

*C20a. In your opinion, how useful to your target users consider your file?*

| | |
|---|---|
| (13) | Very useful |
| (03) | No answer, can't answer, not specified |
| (01) | Pretty useful |
| (01) | Not too useful |

DISPLAY 61A

*A14b. What could you do to make your collection more useful to your target users?*

FREQ

(14) Linkage, intermediation, outreach--More promotion/publicity, getting to meetings of users, people to show and tell at the building level, satellite centers closer to users, effective dissemination, better delivery system, better communications system, promotion of need for and availability of materials, materials on school sites, more workshops.

(09) Collection--More recommendations for acquisitions by information specialists, increase size, more up-to-date (through faster acquisitions processing), production of microfiche of journal articles, effective screening and selection, collection and dissemination of specific information on individual techniques, making more materials accessible, more primary documents available, more comprehensiveness.

(09) Services--more searching, more active services, duplicate copies of journals for circulation, more information analysis and translation, provision of SDI services, training/workshops in use of information materials, circulation of materials, searching service.

(08) Operations--Share information with other organizations, automation of data bases, more quality control, get more organized, on-line computer access, more efficient programmers, better knowledge of outside resources.

(06) Publications--publish index to articles, improve packaging, expand content, handle issues prospectively rather than retrospectively, tailor products toward small, defined groups of users.

(02) No answer, can't answer, not specified

(01) Not applicable

(01) No, none, nothing

(01) Outside factors--Faster abstracts from CIJE, more personnel in education so people have more time to think.

DISPLAY 61B

*B12b. What could you do to make your collection more useful to your target audience?*

FREQ

(02) Improve communications

(01) No answer, can't answer, not specified

(01) Buy more films

(01) Emphasize newer materials

(01) Finish acquisition of materials

(01) More copies of individual titles

(01) More training in use of materials

(01) More user control of product

(01) Organize collection better

(01) Take materials out into the schools

(01) Update materials

DISPLAY 61C

*C20b. What could you do to make your files more useful to your target users?*

*(no answers)*

DISPLAY 62A

*A15a. How do you find out what your clientele wants? (If studies are performed interviewer will request copies of, or references to, public reports of the results. Copies of instruments used in such studies will also be requested.) If no studies are performed, why not?*

FREQ

(17) Case Studies, needs assessments, user needs studies, market surveys

(15) Request patterns

(07) Advisory groups, committees

(04) SDI Profile development for user

(03) Contacts with feds, other organizations

(03) Feedback, spontaneous user

(02) Don't do

(02) Conferences

(02) Contact people active in field (informal)

(02) Market analyses studies, needs assessment, user studies (not by or for them)

(02) Scanning the literature

(01) Contract Negotiations

(01) Evaluations by User Forms

(01) Feedback, solicited

(01) Field tests

DISPLAY 62B

*B13a. How do you find out what your clientele wants? If no studies are performed, why not?*

| FREQ | |
|---|---|
| (05) | Case Studies, needs assessments, user needs studies, market surveys |
| (03) | Request patterns |
| (02) | Feedback, spontaneous user |
| (01) | No answer, can't answer, not specified |
| (01) | Advisory groups, committees |
| (01) | Evaluations by User Forms |
| (01) | Market analyses studies, needs assessment, user studies (not by or for them) |

DISPLAY 62C

*C21a. How do you find out what your clientele wants?*

| FREQ | |
|---|---|
| (06) | No answer, can't answer, not specified |
| (03) | Survey study conducted |
| (02) | Study conducted |
| (02) | Users advisory council, committee |
| (01) | Evaluation form sent with each service response |
| (01) | Formal needs assessment |
| (01) | Planning conference feedback |
| (01) | User-site study conducted |
| (01) | User-request log |

DISPLAY 63A

*A15b. How do you determine whether or not your clientele are satisfied?*

FREQ

(12) Evaluations by User Forms
(12) Feedback, spontaneous user
(08) Case Studies, needs assessments, user needs studies
(07) Return Business, continued use
(03) Site visits
(02) Don't do
(02) Followup calls
(01) Not applicable
(01) Conference
(01) Contract Performance Reports
(01) Evaluations by Third Party
(01) Field Tests
(01) SDI Profile changes for user

DISPLAY 63B

*B13b. How do you determine whether or not your clientele are satisfied?*

FREQ

(04) Feedback, spontaneous user
(02) Case studies, needs assessments, user needs studies
(02) Evaluations by User Forms
(01) Field tests
(01) Return Business, continued use

DISPLAY 63C

*C21b. How do you determine whether or not your clientele are satisfied?*

| FREQ | |
|---|---|
| (04) | No answer, can't answer, not specified |
| (03) | Follow-up on each service response |
| (02) | Complaints (informal) |
| (02) | Feedback forms |
| (02) | Mail surveys |
| (02) | Repeat users |
| (01) | Advisory council |
| (01) | Informal contact |
| (01) | National Org. of Users Advice |
| (01) | Reply cards |
| (01) | Subscription renewals |
| (01) | Telephone feedback calls |

DISPLAY 64A

*A15c. How have you made use of what you found out?*

| FREQ | |
|---|---|
| (09) | No answer, can't answer, not specified |
| (07) | Publications/products--change content, discontinue publication revamp or reformat product, develop new publications/products |
| (07) | Services--discontinue a type of service, adopt suggestions if feasible, extend service hours, continue or expand services, rerun searches |
| (06) | Not applicable |
| (06) | Collection--modify selection of materials, make collection responsive to users, purchase requested materials, broaden resource base |
| (06) | Operations--planning improved operations, changing operations, restructuring the center, adaptation in management objectives, increased staff |
| (04) | Yes |
| (04) | Users, linkage--modify profiles, plan followup study, revise training sessions, get more users involved in planning, encourage PR activities, change name of center to sound less exclusive |
| (01) | Don't do |

DISPLAY 64B

*B13c. How have you made use of what you found out?*

| FREQ | |
|---|---|
| (03) | No answer, can't answer, not specified |
| (03) | Services--discontinue a type of service, adopt suggestions if feasible, extend service hours, continue or expand services, rerun searches. |
| (02) | Collection--modify selection of materials, make collection responsive to users, purchase requested materials, broaden resource base |
| (01) | Don't do |
| (01) | Operations--planning improved operations, changing operations, restructuring the center, adaptation in management objectives, increased staff |
| (01) | Publications/products--change content, discontinue publication revamp or reformat product, develop new publications/products |
| (01) | Users, linkage--modify profiles, plan followup study, revise training sessions, get more users involved in planning, encourage PR activities, change name of center to sound less exclusive |

DISPLAY 64C

*C21c. How have you made use of what you found out?*

| FREQ | |
|---|---|
| (11) | No answer, can't answer, not specified |
| (02) | Augmented weak collection |
| (01) | Changed to upper/lower case |
| (01) | Cleaned up tapes |
| (01) | Information made available on-line |
| (01) | Provide summary of feedback to advisory group |
| (01) | Renegotiate searches |
| (01) | Revised the system procedures |

DISPLAY 65A

*A15d. Have you made any special attempts to reach non-users? If so, how and with what results?*

| FREQ | |
|---|---|
| (10) | Marketing brochures, advertisements |
| (06) | Journals, newsletters |
| (06) | Tour of facility, open house, orientations |
| (06) | Workshops |
| (05) | Professional associations |
| (04) | Exhibits |
| (04) | Personal contact, informal discussion |
| (04) | Press releases, announcements |
| (03) | Don't do |
| (03) | Contact important/influential people |
| (03) | Conventions, conferences, meetings |
| (02) | No answer, can't answer, not specified |
| (02) | Contact students of education |
| (02) | Linkers, school contacts |
| (02) | Slide-tape show, presentation, demonstration |
| (02) | No time |
| (01) | Yes |
| (01) | Involvement of parents and community |
| (01) | Routing of periodicals |
| (01) | School visits |
| (01) | Afraid visibility will cause elimination (by barbarians who don't understand or appreciate information) |
| (01) | Don't want more users |

DISPLAY 65B

*B13d. Have you made any special attempts to reach non-users. If so, how and with what results?*

| FREQ | |
|---|---|
| (03) | Workshops |
| (02) | No, none, nothing |
| (02) | Marketing brochures |
| (02) | Slide-tape show, presentation, demonstration |
| (01) | Involvement of parents and community |
| (01) | Journals, newsletters |
| (01) | Linkers |
| (01) | School visits |
| (01) | Not their responsibility |

DISPLAY 65C

*C21d. Have you made any special attempts to reach non-users? If so, how and with what results?*

| FREQ | |
|---|---|
| (04) | No answer, can't answer, not specified |
| (02) | No, none, nothing |
| (02) | Brochures, displays, descriptions |
| (02) | Field agents |
| (02) | Field demos |
| (02) | Trying to identify real users |
| (01) | Yes |
| (01) | Always |
| (01) | EDSTAT announcement sent |
| (01) | Informal visits |
| (01) | Learning Resource Center Network |
| (01) | Newsletter |
| (01) | Person-to-person |
| (01) | SEA reports |
| (01) | Use of service growing |
| (01) | Press releases |

DISPLAY 66A

*A16a. What kinds of information about users would be useful to you? (E.g., topics of concern to users, products/services desired, satisfaction with products/services.)*

FREQ

(18) Information needs--topics of concern, advance information on education trends, uers' dissertations, local concerns of teachers, future needs, interest profiles, goals, areas of specialization, attitude profiles, thoughts on major issues, current projects/problems

(08) Feedback information--how things are performing, satisfaction with products/services, opinions on resource's effectiveness, impact of service on local education, difficulties with ERIC

(08) Format preferences--willingness/ability to use microfiche, packaging preferences, desired product formats, correlations between users and preferred formats

(08) Information use--using habits, willingness/ability to interpret information, motivation for requests, how information will be used, who uses what, incentives that would promote use, whether information or products are used, reasons for non-use, who users pass info on to

(05) Products/services desired

(03) User characteristics information--who they are, where they are, years employed, position, whether concurrently a student

(03) Don't need information--already have it

(02) No answer, can't answer, not specified

(02) Not asked

(02) Information seeking habits

(02) Interaction--how to improve communications, how to provide a comfortable environment

(02) School district information--how money is allocated locally, how things are implemented, what priorities schools have

DISPLAY 66B

*B14a. What kinds of information about users would be useful to you? (E.g., topics of concern to users, products/services desired, satisfaction with products/services?*

| FREQ | |
|---|---|
| (03) | No answer, can't answer, not specified |
| (02) | Handicapping condition of their students |
| (01) | How soon user receives the information |
| (01) | How to improve communications |
| (01) | Information needs |
| (01) | Position of users |
| (01) | Priorities schools have |
| (01) | Training of teachers serving the population |
| (01) | What environment would be comfortable for bilingual, bicultural |

DISPLAY 66C

*C22a. What kinds of information about users would be useful to you? (E.g., topics of concern to users, products/services desired, satisfaction with products/services.)*

| FREQ | |
|---|---|
| (04) | No answer, can't answer, not specified |
| (03) | What are they like? |
| (02) | No, none, nothing |
| (02) | Form they desire information in |
| (02) | Instructional program types most desired |
| (02) | Priorities of needs for service |
| (02) | Who are they? |
| (02) | Who using what product, how? |
| (01) | Not asked |
| (01) | Critical problems? |
| (01) | How seek information? |
| (01) | How should index be organized? |
| (01) | Importance of universe vs. sample data |
| (01) | Non-users: Why? |
| (01) | Product packaging preferences |
| (01) | Regional and local concerns of users |
| (01) | Speed of delivery desired |
| (01) | Users equipments, programming skills and capabilities |
| (01) | Want product lists? Evaluations? Prices? Tailoring? |
| (01) | Willingness to pay? |

DISPLAY 67A

*A16b. How would this information be of help to you? That is, in what specific ways would you make use of the information?*

FREQ

(11) Services--provide appropriate additional services, improve or tailor existing services, reach users at practical level, do SDI, make better use of linkers

(08) Products--design appropriate new products, change or improve existing products, prepackage information

(06) Users--keep users satisfied, get new users, plan marketing, identify users, determine reasons for non-use or dissatisfaction

(05) No answer, can't answer, not specified

(05) Collection--determine areas to add to the collection, change the collection, identify useful content

(04) Not applicable

(02) Not asked

(01) Management/operations--learn what to recommend for future development, identify weaknesses in management system

(01) Generally, do more and better

DISPLAY 67B

*B14b. How would this information be of help to you? That is, in what specific ways would you make use of the information?*

FREQ

(03) No answer, can't answer, not specified

(03) Collection--determine areas to add to the collection, change the collection, identify useful content

(02) Services--provide appropriate additional services, improve or tailor existing services, reach users at practical level, do SDI

(01) Management/operations--learn what to recommend for future development, identify weaknesses in management system

(01) Users--keep users satisfied, get new users, plan marketing, identify users, determine reasons for non-use or dissatisfaction

DISPLAY 67C

*C22b. How would this information be of help to you? That is, what specific ways would you make use of the information?*

| FREQ | |
|---|---|
| (07) | No answer, can't answer, not specified |
| (03) | Combine and modify files |
| (03) | Design special products |
| (02) | Change operational procedures |
| (01) | Not asked |
| (01) | Contact non-users |
| (01) | Control impact of vocal minorities |
| (01) | Correct thesaurus |
| (01) | Decide how much analysis to do |
| (01) | Demonstrate help to local problems |
| (01) | Design new services |
| (01) | Priority setting |
| (01) | Produce special publications |
| (01) | Reformat information packages |
| (01) | Alter data base composition |

DISPLAY 68A

*A20a. Was your collection originally established in response to specific needs or requests? If so, how was the need identified?*

FREQ

(13) Collection-oriented
(10) Fed. decision, program
(08) Evolution
(05) Service-oriented
(04) Audience-oriented
(04) Studies, research
(03) No answer, can't answer, not specified
(03) Yes
(03) LEA decision
(02) Don't know, can't recall
(02) Product-oriented
(02) Organizational meetings
(02) SEA decision
(01) Not asked
(01) Not applicable
(01) No, none, nothing

DISPLAY 68B

*B15a. Was your collection originally established in response to specific needs or requests? If so, how was the need identified?*

FREQ

(04) Collection-oriented

(03) Federal decision, program

(03) Service-oriented

(02) Product-oriented

(02) LEA decision

(02) Studies, research

(01) No answer, can't answer, not specified

(01) Organizational meetings

DISPLAY 68C

*C23a. Was your file originally established in response to specific needs or requests? If so, how was the need identified?*

| FREQ | |
|---|---|
| (05) | General expressed need |
| (02) | No answer, can't answer, not specified |
| (02) | Faculties recognized need |
| (02) | Project pushed by imminent developer |
| (01) | Feasibility study by USOE |
| (01) | Found locals would not travel |
| (01) | Growing requests from users |
| (01) | Important persons asked for it |
| (01) | Leaders in a meeting |
| (01) | State D.P.I. perceived need |
| (01) | By special study |

DISPLAY 69A

*A20b. Is your collection now directed toward specific needs or requests? If so, how was the need identified?*

FREQ

(10) No change in direction

(07) No answer, can't answer, not specified

(05) Yes

(04) Studies, research

(03) Audience-oriented

(03) Same but expanded

(02) Collection-oriented

(01) Not asked

(01) Not applicable

(01) No, none, nothing

(01) Product-oriented

(01) Evolution

(01) Service-oriented

DISPLAY 69B

*B15b. Is your collection now directed toward specific needs or requests? If so, how was the need identified?*

| FREQ | |
|---|---|
| (05) | Same as before |
| (01) | No answer, can't answer, not specified |
| (01) | Not applicable |
| (01) | Special education materials |
| (01) | Teacher training |

DISPLAY 69C

*C23b. Is your collection now directed toward specific needs or requests? If so, how was the need identified?*

| FREQ | |
|---|---|
| (07) | No answer, can't answer, not specified |
| (07) | No, none, nothing |
| (02) | Collection has shifted to higher ed. needs |
| (01) | Not applicable |
| (01) | By asking at district, state levels |

DISPLAY 70A

*A18. How do users normally find out about this collection?*

FREQ

(16) Advertising/publicity--media coverage, publicity, direct mailing brochure, poster

(15) Word of mouth, referrals

(14) Publications--Publications, newsletters, phone directory listing, articles in newsletters, catalogs, products

(12) Personal contact--visibility, personal contact, linkers sponsoring organizations

(10) Training/education--universities, professors of education, workshops, orientation sessions, presentations, films

(07) Displays, exhibits--in schools, at professional meetings, conferences

(02) No answer, can't answer, not specified

(01) Not applicable

DISPLAY 70B

*B16. How do users normally find out about this collection?*

FREQ

(05) Publications--Publications, newsletters, phone directory listing, articles in newsletters, catalogs, products

(04) Advertising/publicity--media coverage, publicity, direct mailing brochure, poster

(03) Personal contact--visibility, personal contact, linkers, sponsoring organizations

(02) Displays, exhibits--in schools, at professional meetings, conferences

(02) Training/education--universities, professors of education, workshops, orientation sessions, presentations, films

(02) Word of mouth

DISPLAY 70C

C24. *How do users normally find out about the existence of the file and what information it contains?*

| FREQ | |
|---|---|
| (08) | Word-of-mouth |
| (04) | Newsletters, flyers |
| (04) | Regional training program |
| (03) | No answer, can't answer, not specified |
| (03) | Brochures |
| (02) | Presentations |
| (02) | Professional organizations |
| (02) | RCUs |
| (02) | User workshops |
| (01) | Articles |
| (01) | Displays |
| (01) | Linked with school system organizationally |
| (01) | On-site visits to users |
| (01) | User information package |
| (01) | University |
| (01) | Media coverage |

DISPLAY 71A

*A19a. Do you publish any information related to your collection in newsletters, announcements, etc.?*

| FREQ | |
|---|---|
| (17) | Bulletins, newsletters |
| (06) | Yes |
| (04) | No, none, nothing |
| (02) | Acquisition lists |
| (02) | Brochures |
| (02) | Catalog of services and products |
| (02) | Compilations of Bibliographies |
| (02) | Flyers |
| (01) | No answer, can't answer, not specified |
| (01) | Not applicable |
| (01) | Abstracts |
| (01) | Advertisements |
| (01) | Articles in other publications |
| (01) | Bibliographies |
| (01) | HENA |
| (01) | Journals |
| (01) | Press Releases |
| (01) | Publications Lists |

DISPLAY 71B

*B17. Do you publish any catalogs or indexes to your collection?*

| FREQ | |
|---|---|
| (07) | Yes |
| (01) | No answer, can't answer, not specified |
| (01) | No, none, nothing |

*B18a. Do you publish any other information related to your collection in newsletters, announcements, etc.?*

| FREQ | |
|---|---|
| (03) | Bulletins, newsletters |
| (02) | Yes |
| (01) | No answer, can't answer, not specified |
| (01) | No, none, nothing |
| (01) | Brochures |
| (01) | Publications Lists |

DISPLAY 71C

*C25a. Do you publish any information related to your files in newsletters, announcements, etc.?*

| FREQ | |
|---|---|
| (07) | Newsletter |
| (03) | No answer, can't answer, not specified |
| (02) | Yes |
| (02) | Press releases |
| (01) | No, none, nothing |
| (01) | Announcements |
| (01) | Brochures |
| (01) | Flyers |
| (01) | Information retrieval guide |
| (01) | Information Packets |
| (01) | User manual |

DISPLAY 72A

*A19b. What type of advertising do you do?*

| FREQ | |
|---|---|
| (12) | No, none, nothing |
| (12) | Brochures, flyers |
| (07) | Announcements in bulletins, newsletters |
| (03) | Ads in journals |
| (03) | Direct mail |
| (02) | Exhibits at conventions |
| (02) | In-service training, workshops |
| (01) | No answer, can't answer, not specified |
| (01) | Poster |
| (01) | Press releases |
| (01) | Slide-tape presentations |
| (01) | TV announcements |
| (01) | TV program |

DISPLAY 72B

*B18b. What type of advertising do you do?*

| FREQ | |
|---|---|
| (64) | No, none, nothing |
| (01) | Rarely |
| (01) | Ads in journals |
| (01) | Announcements in bulletins, newsletters |
| (01) | Brochures, flyers |
| (01) | Slide-tape presentations |

DISPLAY 72C

*C25b. What types of advertising do you do?*

| FREQ | |
|---|---|
| (05) | Direct mail |
| (04) | None |
| (03) | No answer, can't answer, not specified |
| (03) | Journals and reviews |
| (02) | Booths at meetings |
| (02) | Brochures |
| (02) | News Releases, articles |
| (01) | Displays |
| (01) | No paid advertising |
| (01) | Presentations at schools |
| (01) | Send speakers |
| (01) | Visit school districts |

DISPLAY 73A

*A17a. How do your users obtain information from your collection?*

| FREQ | |
|---|---|
| (15) | Telephone call |
| (10) | Letter |
| (09) | Personal walk-in |
| (05) | Mailed |
| (04) | Field agent (via linker) |
| (03) | Subscription |
| (03) | Technical assistance |
| (03) | Delivered |
| (02) | No answer, can't answer, not specified |
| (02) | Secretary, other staff rep., (send) |
| (02) | Catalogs |
| (02) | Computer search |
| (02) | Documents |
| (01) | Not applicable |
| (01) | Order form |
| (01) | SDI profile |
| (01) | Citations/Bibliographies |
| (01) | Manual search |
| (01) | Search personnel |
| (01) | Workshops |
| (01) | Picked up |

DISPLAY 73AA

*A17b. In your opinion, do your users find it easy to obtain information from your collection?*

| FREQ | |
|---|---|
| (29) | Yes |
| (02) | Not applicable |
| (02) | Initial orientation needed |
| (01) | No answer, can't answer, not specified |
| (01) | No way of finding out user needs |
| (01) | Problems of distance from users |
| (01) | Thesaurus hard to learn |
| (01) | Too slow turn-around time |

DISPLAY 73B

*B20. How are materials in your collection obtained by your users? That is, how do they go about locating and requesting the materials they need?*

| FREQ | |
|---|---|
| (04) | Access through catalogs |
| (02) | Personal walk-in request |
| (02) | Delivered to requester |
| (01) | Not applicable |
| (01) | Requests by letter |
| (01) | Use of order forms |
| (01) | Requests via Reference Librarian |
| (01) | Requests by telephone |
| (01) | Access computer search |
| (01) | Mailed to requester |
| (01) | Direct broadcast delivery |

DISPLAY 73C

*C26. How do users access information in your file? Is the information accessed directly by the user or through an intermediary?*

| FREQ | |
|---|---|
| (06) | Intermediaries |
| (04) | Both ways |
| (02) | No answer, can't answer, not specified |
| (02) | Batch search formulations |
| (02) | Catalogs |
| (02) | On-line access terminals |
| (02) | Write in request |
| (01) | Bring in requests |
| (01) | Indexes |
| (01) | Phone in request |

DISPLAY 74A

*A21. What kinds of equipment or technology, if any, do you utilize in the performance of your activities or services? How is the quality?*

| FREQ | EQUIPMENT | FREQ | QUALITY/PERFORMANCE |
|---|---|---|---|
| (14) | Computer terminal | | |
| (13) | Microform reader | (02) | Generally bad |
| (13) | Microform reader-printer | (02) | Generally good |
| | | (01) | Generally excellent |
| (11) | Computer and peripherals | | |
| (11) | Microform duplicator, producer | | |
| (05) | Copying equipment | | |
| (05) | Printing/offset press | | |
| (03) | Mag-card, mag-tape typewriters, word processing equipment | | |
| (02) | No answer, can't answer, not specified | | |
| (02) | No, none, nothing | | |
| (02) | Film processing equipment | | |
| (02) | Projectors (film, slide, overhead, etc.) | | |
| (02) | REMcard reader | (01) | Generally bad |
| (02) | TWX | | |
| (02) | Varityper, composer | (01) | Generally excellent |
| (01) | Not asked | | |
| (01) | Copy camera | | |
| (01) | Dry-mount press | | |
| (01) | Dual image reader | | |
| (01) | Laminator | | |
| (01) | Printer-processor | | |
| (01) | Videotape recorder | | |
| (01) | WATS line | | |
| (01) | Telecopiers | | |

DISPLAY 74B

*B23. What kinds of equipment or technology do you utilize in the performance of any of your activities or services?*

| FREQ | |
|---|---|
| (04) | Projectors (film, slide, overhead, etc.) |
| (03) | Audiotape, cassette recorders |
| (02) | Computer and peripherals |
| (02) | Laminator |
| (02) | Printing/offset press |
| (02) | Slide/tape production, duplication equipment |
| (01) | No, none, nothing |
| (01) | Closed circuit television |
| (01) | Computer terminal |
| (01) | Copying equipment |
| (01) | Darkroom |
| (01) | Delivery vans |
| (01) | Drymount press |
| (01) | Film editing equipment, splicers |
| (01) | Film inspection and cleaning requirement |
| (01) | Film processing equipment |
| (01) | Microform reader |
| (01) | Microform reader/printer |
| (01) | Phonographs |
| (01) | Radio transmission |
| (01) | Standard television transmission |
| (01) | Varityper, composer |
| (01) | Videotape recorder |

DISPLAY 74C

*C27. What kinds of equipment or technology do you utilize in the performance of any of your activities or services?*

| FREQ | |
|---|---|
| (09) | Computers |
| (03) | No answer, can't answer, not specified |
| (03) | Fiche reader-printer |
| (02) | CRT Terminals |
| (02) | Telecommunications |
| (01) | COM |
| (01) | ERIC Thesaurus |
| (01) | Fiche-to-fiche printer |
| (01) | On-line Data Base Technology |
| (01) | Photocomposition from Mag tapes |
| (01) | Printer Terminals |

DISPLAY 75A

*A22a. Are you maintaining as large or comprehensive a collection as is needed by the users presently served?*

FREQ

(15) Yes
(14) No, none, nothing
(05) No answer, can't answer, not specified
(02) Not applicable
(01) Not asked

DISPLAY 75B

*B24a. Are you maintianing as large or as comprehensive a collection as is needed by the users presently served?*

FREQ

(07) No, none, nothing
(01) Not applicable
(01) Yes

DISPLAY 75C

*C28a. Are you maintaining as large or comprehensive a file as is needed by the users presently served?*

FREQ

(07) Yes
(06) No
(05) No answer, can't answer, not specified

DISPLAY 76A

*A22b. Has your collection been on the increase, on the decrease, or stayed about the same over the past 2 years?*

FREQ

(30) Increase
(03) No answer, can't answer, not specified
(02) About the same
(01) Not applicable
(01) Decrease

DISPLAY 76B

*B24b. Has your collection been on the increase, on the decrease, or stayed about the same over the past 2 years?*

FREQ

(07) Increase
(02) About the same

DISPLAY 76C

*B28b. Has your collection been on the increase, on the decrease, or stayed about the same over the past 2 years?*

FREQ

(10) Increase
(06) No answer, can't answer, not specified
(01) Just started
(01) Same

DISPLAY 77A

*A22c. How are your collection limits, or priorities determined? (That is, who decides, and on what basis?)*

| FREQ | |
|---|---|
| (18) | Available funds, budget, resources |
| (11) | Based on needs, demands |
| (07) | Director, management, board of directors |
| (06) | No answer, can't answer, not specified |
| (04) | Director and staff |
| (03) | Advisory committee |
| (03) | Staff |
| (02) | Outside organization |
| (02) | Space constraints |
| (01) | Not asked |
| (01) | Not applicable |
| (01) | Accountant |
| (01) | LEA superintendent |
| (01) | Purchasing person |
| (01) | Time and management costs |

DISPLAY 77B

*B24c. How are your collection limits, or priorities determined? (That is, who decides, and on what basis?)*

| FREQ | |
|---|---|
| (03) | Outside organization (Available funds) |
| (03) | Available funds, budget, resources |
| (03) | Based on needs, demands |
| (02) | Advisory committee (Available funds) |
| (01) | No answer, can't answer, not specified |
| (01) | Director and staff |
| (01) | Director, management, board of directors |
| (01) | LEA superintendent (Needs and demands) |
| (01) | Purchasing person (Needs and demands) |

DISPLAY 77C

*C28c. How are your file limits, or priorities determined? That is, who decides, and on what basis?*

| FREQ | |
|---|---|
| (08) | No answer, can't answer, not specified |
| (02) | Staff of unit (Budget) |
| (02) | Amount of literature published |
| (01) | Don't do |
| (01) | Advisory committee (Budget, letters to users) |
| (01) | ERIC (Budget) |
| (01) | Library of Congress |
| (01) | Managerial board |
| (01) | USOE |
| (01) | Letters, calls to users |

DISPLAY 78B

*B19. What means of bibliographic control do you use for your collection?*

| FREQ | |
|---|---|
| (03) | Not applicable |
| (01) | No answer, can't answer, not specified |
| (01) | No, none, nothing |
| (01) | Card catalog system |
| (01) | Local machine-readable file |
| (01) | National machine-readable file |
| (01) | Printed catalog |

DISPLAY 79B

B22. *Do you provide any assistance (training guides, instruction manuals, personal assistance) in the use of any of the materials in your collection?*

| FREQ | |
|---|---|
| (02) | Yes |
| (02) | Instruction books |
| (02) | Personal assistance |
| (01) | No, none, nothing |
| (01) | Installation of antennas |
| (01) | Materials on how to use equipment |
| (01) | Materials on how to use media |
| (01) | Projectionists |
| (01) | Workshops on how to use film |

DISPLAY 80C

*C5. Is any information in the file(s) sensitive or confidential?*

| FREQ | |
|---|---|
| (13) | No, none, nothing |
| (01) | No answer, can't answer, not specified |
| (01) | Opinions not attributed to identified individuals |
| (01) | Some things confidential |
| (01) | Some things not published in index |
| (01) | Teacher salaries of individuals |

DISPLAY 81C

*C6b. Average number of characters per record?*

FREQ

(05) ERIC

(04) No answer, can't answer, not specified

(02) 0 - 100

(02) 100 - 500

(02) 600 - 1000

(01) Variable: sometimes, occasionally, informally, maybe

(01) 2000 - plus

DISPLAY 82C

*C9. How frequently is updating performed?*

FREQ

| | |
|---|---|
| (04) | Quarterly |
| (03) | No Schedule |
| (02) | No answer, can't answer, not specified |
| (02) | Don't do |
| (02) | Annually |
| (02) | ERIC Rate |
| (01) | Based on users requests |
| (01) | Monthly |
| (01) | Bi-Monthly |
| (01) | Twice yearly |

DISPLAY 83C

*C10. How long a time elapses between the original creation of the data and its inclusion in your file?*

| FREQ | |
|---|---|
| (05) | No answer, can't answer, not specified |
| (02) | 2 months |
| (02) | 3 months |
| (02) | 4 months |
| (02) | 6 - 24 months |
| (01) | Variable: sometimes, occasionally, informally, maybe |
| (01) | Don't know, can't recall |
| (01) | Almost immediately |
| (01) | Before printed materials available |
| (01) | Not regular as yet |
| (01) | 1 month |
| (01) | ERIC |

DISPLAY 84A

*G15. How many other information resources are there in the United States that are similar to yours? In other countries? How are they similar?*

A - Print Materials Only

FREQ

(03) Clearinghouse
(03) State Facilitator Projects
(02) Higher Education Users
(02) ERIC data bases
(02) Same data bases
(02) State-funded
(02) Local
(02) Nation-wide
(02) State Resource Centers
(01) High level users
(01) Education data bases
(01) Private non-profit
(01) School-financed
(01) Regional
(01) Wide-spread
(01) Blend of diffusion, process util.
(01) Computer searches
(01) Large computer network
(01) One or more similar components
(01) Searches

DISPLAY 84C

G15. (Continued)

C - Machine-Readable Files Only

FREQ

(03) Computer searches
(02) Same data bases
(02) Local
(01) None with similar collection
(01) Nation-wide
(01) Citations, abstracts
(01) Large computer network
(01) One or more similar components
(01) Tape copying
(01) Computer center
(01) Resource Coordinating Units
(01) R&D Lab
(01) Service Agencies
(01) State Resource Centers
(01) Data Stores

DISPLAY 84B

G15. (Continued)

B - Non-Print Materials Only

FREQ

(01) Education Service Centers
(01) Service Agencies

DISPLAY 85A

*D7. Which of the activities on this list do you perform as part of your service? (List C)*

A - Print Materials Only

FREQ

(21) Specific searches of literature files to identify relevant documents.

(17) Quick delivery of requested documents.

(15) Access to an information specialist to assist in information searches.

(14) Analyses of critical educational problems and discussion of alternative solutions.

(13) Ready reference to specific facts or topics.

(12) Examination of critical educational problems and their alternative solutions.

(12) Practical curriculum materials (including guides on how to do something).

(12) Referral services telling user where to find any kind of information.

(11) Studies of actual cases that give concete examples of educational innovations.

(10) Concise digests of major news, current events, new issues or developments in education.

(10) Technical reports dealing with methodology and findings.

(10) Factual evaluations of educational programs and practices.

(10) Access to someone to assist user in initiating new educational programs or practices.

(09) Analyses of major trends and issues in education.

(09) Reviews or syntheses of related studies containing interpretations and recommendations.

DISPLAY 85A (Continued)

FREQ

(09) Lists of human resources with descriptive information (expertise and availability of consultants, trainers, etc.).

(09) Access to subject matter or problem content experts for interpretation or evaluation of information.

(07) Theoretical papers dealing with conceptualization and philosophy.

(07) Routine mailings of digests or abstracts of current information and new developments in various areas of interest (SDI).

(07) Tailored reports on statistical data (student achievement, financial, etc.).

(07) Access to experts in evaluating and recommending promising educational practices.

(05) Specific searches of computer data bases to retrieve statistical data.

(01) Not asked

DISPLAY 85B

D7. (Continued)

B - Non-Print Materials Only

FREQ

(03) Quick delivery of requested documents.

(02) Practical curriculum materials (including guides on how to do something).

(02) Analyses of major trends and issues in education.

(02) Routine mailings of digests or abstracts of current information and new developments in various areas of interest (SDI).

(02) Ready reference to specific facts or topics.

(02) Referral services telling user where to find any kind of information.

(02) Access to experts in evaluating and recommending promising educational practices.

(01) Examinations of critical educational problems and their alternative solutions.

(01) Analyses of critical educational problems and discussion of alternative solutions.

(01) Concise digests of major news, current events, new issues or developments in education.

(01) Theoretical papers dealing with conceptualization and philosophy.

(01) Technical reports dealing with methodology and findings.

(01) Reviews or syntheses of related studies containing interpretations recommendations.

(01) Studies of actual cases that give concrete examples of educational innovations.

(01) Lists of human resources with descriptive information (expertise and availability of consultants, trainers, etc.).

(01) Specific searches of computer data bases to retrieve statistical data.

(01) Specific searches of literature files to identify relevant documents.

(01) Access to subject matter or problem content experts for interpretation or evaluation of information.

DISPLAY 85B (Continued)

FREQ

(01) Tailored reports on statistical data (student achievement, financial, etc.).

(01) Access to an information specialist to assist in information searches.

(01) Factual evaluations of educational programs and practices.

(01) Access to someone to assist user in initiating new educational programs or practices.

DISPLAY 85C

D7. (Continued)

C - Machine-Readable Files Only

FREQ

(06) Specific searches of literature files to identify relevant documents.

(05) Specific searches of computer data bases to retrieve statistical data.

(04) Tailored reports on statistical data (student achievement, financial, etc.).

(04) Access to an information specialist to assist in information searches.

(03) Technical reports dealing with methodology and findings.

(03) Lists of human resources with descriptive information (expertise and availability of consultants, trainers, etc.).

(03) Ready reference to specific facts or topics.

(03) Referral services telling user where to find any kind of information.

(03) Access to subject matter or problem content experts for interpretation or evaluation of information.

(03) Access to someone to assist user in initiating new educational programs or practices.

(02) Examination of critical educational problems and their alternative solutions.

(02) Concise digests of major news, current events, new issues or developments in education.

(02) Practical curriculum materials (including guides on how to do something).

(02) Access to experts in evaluating and recommending promising educational practices.

DISPLAY 85C (Continued)

FREQ

(01) No answer, can't answer, not specified

(01) Not applicable

(01) Analyses of critical educational problems and discussion of alternative solutions.

(01) Theoretical papers dealing with conceptualization and philosophy.

(01) Analyses of major trends and issues in education.

(01) Routine mailings of digests or abstracts of current information and new developments in various areas of interest (SDI).

(01) Studies of actual cases that give concrete examples of educational innovations.

(01) Quick delivery of requested documents.

DISPLAY 86

*D13b. Which of the following files would be most useful to you or your users?*

HUMAN RESOURCES

| | PRINT | NON-PRINT | MACHINE-READABLE |
|---|---|---|---|
| Yes | 15 | 1 | 5 |
| High | 1 | | |
| Med. High | 1 | | |
| Medium | 1 | | |
| Variable | 1 | | |
| Medium Low | | | |
| Low | | | |
| No | 6 | 2 | 2 |
| Not Applicable | | | |
| Not Asked | | | |

LEGISLATIVE/ LEGAL

| | PRINT | NON-PRINT | MACHINE-READABLE |
|---|---|---|---|
| Yes | 15 | | 2 |
| High | 4 | | |
| Med. High | 1 | | |
| Medium | | | |
| Variable | | | |
| Medium Low | 1 | | |
| Low | | | |
| No | 4 | 3 | 5 |
| Not Applicable | | | |
| Not Asked | | | |

CURRICULUM MATERIALS

| | PRINT | NON-PRINT | MACHINE-READABLE |
|---|---|---|---|
| Yes | 10 | 1 | 3 |
| High | | | 1 |
| Med. High | 1 | | 1 |
| Medium | | | |
| Variable | | | |
| Medium Low | | | |
| Low | | | |
| No | 14 | 2 | 2 |
| Not Applicable | | | |
| Not Asked | | | |

Continued

DISPLAY 86 (Continued)

NONPRINT MEDIA

| | PRINT | NON-PRINT | MACHINE-READABLE |
|---|---|---|---|
| Yes | 10 | 3 | 2 |
| High | | | |
| Med. High | 1 | | 1 |
| Medium | | | |
| Variable | | | |
| Medium Low | | | |
| Low | | | |
| No | 14 | | 4 |
| Not Applicable | | | |
| Not Asked | | | |

PROMISING PRACTICES

| | PRINT | NON-PRINT | MACHINE-READABLE |
|---|---|---|---|
| Yes | 16 | 1 | 3 |
| High | 4 | | 1 |
| Med. High | 1 | | |
| Medium | | | 1 |
| Variable | | | |
| Medium Low | | | |
| Low | | | |
| No | 4 | 2 | 2 |
| Not Applicable | | | |
| Not Asked | | | |

DISPLAY 87A

*D15. Do you offer any guidance to or explanation of reference or materials when they are delivered to the user? That is, do you send along a letter of explanation, go over the materials in person with the user, etc.?*

A - Print Materials Only

FREQ

(11) Cover letter explaining search procedures, etc.
(08) Go over materials with users in person
(03) Yes
(03) No, none, nothing
(02) Guidance/explanation is covered in workshops or presentations
(02) Materials are self-explanatory
(01) Not asked
(01) Not applicable
(01) Explanation included in the product

DISPLAY 87B

B - Non-Print Materials Only

FREQ

(01) Not applicable
(01) Explanation included in the product
(01) Guidance/explanation is covered in workshops or presentations

DISPLAY 87C

C - Machine-Readable Files Only

FREQ

(03) Cover letter explaining search procedures, etc.
(02) No, none, nothing
(02) Guidance/explanation is covered in workshops or presentations
(01) Not applicable
(01) Variable: sometimes, occasionally, informally, maybe
(01) Cover letter explaining billing system

DISPLAY 88

*D16. Do you publish any tools or guides on the use of your service?*

A - Print Materials Only

| FREQ | |
|---|---|
| (12) | No, none, nothing |
| (05) | Brochures, flyers |
| (03) | Yes |
| (03) | Manuals, guides |
| (01) | No answer, can't answer, not specified |
| (01) | Not asked |
| (01) | Not applicable |
| (01) | Catalogs |
| (01) | Letter of explanation to new subscribers |
| (01) | Newsletters |
| (01) | Contained in product |

B - Non-Print Materials Only

| FREQ | |
|---|---|
| (02) | No, none, nothing |
| (01) | Not applicable |

C - Machine Readable Files Only

| FREQ | |
|---|---|
| (05) | Manuals, guides |
| (03) | Brochures, flyers |
| (02) | Newsletters |
| (01) | Yes |
| (01) | Training packages |

DISPLAY 89

*D17. Do you offer any training or workshops on the use of your service?*

A - Print Materials Only

| FREQ | |
|---|---|
| (08) | Yes |
| (08) | No, none, nothing |
| (07) | Train end users |
| (03) | Train intermediaries |
| (01) | No answer, can't answer, not specified |
| (01) | Train both |

B - Non-Print Materials Only

| FREQ | |
|---|---|
| (01) | Not applicable |
| (01) | No, none, nothing |
| (01) | Train end users |

C - Machine Readable Files Only

| FREQ | |
|---|---|
| (03) | No, none, nothing |
| (03) | Train intermediaries |
| (03) | Train end users |
| (01) | Yes |

DISPLAY 90

*D21a. Are you serving as many users as you now have the capacity to serve?*

A - Print Materials Only

FREQ

(14) Yes
(11) No, none, nothing
(03) No answer, can't answer, not specified

B - Non-Print Materials Only

(03) No, none, nothing
(01) Lack sufficient TV equipment to expand.

C - Machine Readable Files Only

FREQ

(07) No, none, nothing
(01) No answer, can't answer, not specified
(01) Not applicable
(01) Yes

DISPLAY 91

*D21c. How are your service capacity limits, or priorities determined? (That is who decides, and on what basis?)*

A - Print Materials Only

FREQ

(08) Available funding resources
(07) No answer, can't answer, not specified
(04) Available trained staff
(02) Mission statement
(02) Priorities systems
(02) Number of subscribers
(02) Administrators and/or staff decides
(01) Don't do
(01) Board decides, basis of need
(01) Contract stipulations
(01) State, Federal determined work scope
(01) Service Load, Time Available
(01) Sponsoring Institution Staff Gets Priority

B - Non-Print Materials Only

FREQ

(01) No answer, can't answer, not specified
(01) Available funding resources
(01) State, Federal determined work scope
(01) Sponsoring Institution Staff Gets Priority

C - Machine Readable Files Only

FREQ

(04) Administrators and/or staff decides
(02) No answer, can't answer, not specified
(01) Don't do
(01) Available trained staff
(01) Board decides, basis of need
(01) User request patterns

DISPLAY 92

*D2. Are there any limitations or restrictions on the use of your service?*

| FREQ | |
|---|---|
| (22) | No, none, nothing |
| (04) | Ability to pay only |
| (04) | Residents within state |
| (03) | Contractual clients, subscribers |
| (03) | Handicapped only, special education |
| (02) | Free within district, others pay |
| (02) | Subscribing school districts |
| (02) | Residents within region |
| (02) | No commercial or resale use of information |
| (02) | No profit makers, commercial firms |
| (01) | Contracts required for non-university users |
| (01) | Free to educators, others pay |
| (01) | Non-participants pay fee |
| (01) | Regional personnel, and financially committed outside projects |
| (01) | Dept. specialists, field workers only |
| (01) | Legislators only |
| (01) | State agency personnel only |
| (01) | Residents within county |
| (01) | Public school system personnel only |
| (01) | Library stacks restricted |
| (01) | No legal or qualitative determinations on searches |
| (01) | No legislators, university personnel |
| (01) | No outside circulation |
| (01) | No research type queries answered |
| (01) | Limited services outside university |

DISPLAY 93

*D3. Does your service provide access to collections other than the one(s) we have discussed? If so, what are they?*

| FREQ | |
|---|---|
| (19) | No, none, nothing |
| (05) | Not asked |
| (04) | Other search systems, sources, referrals |
| (04) | Not specified |
| (03) | University Libraries |
| (02) | Not applicable |
| (02) | Anywhere (i.e., wherever necessary) |
| (02) | Psych. Abstracts, and other abstracting/indexing services |
| (02) | Public Libraries |
| (02) | SMERC |
| (02) | State Library |
| (01) | ACES |
| (01) | CEC |
| (01) | CEDIS |
| (01) | ECS |
| (01) | ERIC Centers, Clearinghouses |
| (01) | Brookings |
| (01) | Institute of Governmental Studies |
| (01) | Foundations, Associations, Institutes for handicapped |
| (01) | Foundations, Associations, Institutes for retarded children |
| (01) | Center for Research in Education |
| (01) | L.C. |
| (01) | MEDLARS |
| (01) | National Public Broadcasting |
| (01) | Network of Innovative Schools |
| (01) | NCEMMH |
| (01) | NIE |
| (01) | Special (Academic) Libraries |
| (01) | Special Office #4, Bloomington |
| (01) | State reference, loan network |
| (01) | State dept. of education |
| (01) | Other government agencies |
| (01) | APA library |

DISPLAY 94

*D5. Does your service participate in or use any information networks or cooperatives?*

| FREQ | | FREQ | | FREQ | |
|---|---|---|---|---|---|
| (19) | National | (14) | Non-Profit | (04) | Profit |
| (17) | No, none, nothing | | | | |
| (07) | Regional | (07) | Non-Profit | | |
| (06) | Variable: sometimes, occasionally, informally, maybe | | | | |
| (06) | State | (06) | Non-Profit | | |
| (02) | Not applicable | | | | |
| (01) | Don't know, can't recall | | | | |

DISPLAY 95

*D4. Are the materials to which you provide access inhouse, out-of-house, or a combination of the two?*

| FREQ | |
|---|---|
| (16) | Mostly inhouse |
| (13) | Entirely inhouse |
| (11) | Mostly out-of-house |
| (07) | Entirely out-of-house |
| (03) | Half and half |
| (02) | Not applicable |
| (02) | No answer, can't answer, not specified |

DISPLAY 96 IN

*D7. Which of the activities on this list do you perform as part of your service? (In-House Service)*

FREQ

(19) Specific searches of literature files to identify relevant documents.

(15) Quick delivery of requested documents.

(13) Practical curriculum materials (including guides on how to do something)

(13) Referral services telling user where to find any kind of information.

(13) Access to an information specialist to assist in information searches.

(12) Access to someone to assist user in initiating new educational programs or practices.

(11) Analyses of critical educational problems and discussion of alternative solutions.

(11) Lists of human resources with descriptive information (expertise and availability of consultants, trainers, etc.).

(11) Ready reference to specific facts or topics.

(11) Access to subject matter or problem content experts for interpretation or evaluation of information.

(10) Access to experts in evaluating and recommending promising educational practices.

(09) Examination of critical educational problems and their alternative solutions.

(09) Specific searches of computer data bases to retrieve statistical data.

(08) Routine mailings of digests or abstracts of current information and new developments in various areas of interest (SDI).

(07) Concise digests of major news, current events, new issues or developments in education.

(07) Tailored reports on statistical data (student achievement, financial, etc.)

(07) Factual evaluations of educational programs and practices.

(06) Studies of actual cases that give concrete examples of educ. innovations.

(05) Technical reports dealing with methodology and findings.

(05) Analyses of major trends and issues in education.

(04) Theoretical papers dealing with conceptualizations and philosophy.

(04) Reviews or syntheses of related studies concerning interpretations and recommendations.

(01) No answer, can't answer, not specified.

(01) Not asked

DISPLAY 96 OUT

*D7. Which of the activities on this list do you perform as part of your service? (Out-of-House Service)*

FREQ

(13) Specific searches of literature files to identify relevant documents.

(12) Quick delivery of requested documents.

(11) Technical reports dealing with methodology and findings.

(10) Examination of critical educational problems and their alternative solutions.

(10) Analyses of critical educational problems and discussion of alternative solutions.

(10) Studies of actual cases that give concrete examples of educ. innovations.

(10) Access to an information specialist to assist in information searches.

(09) Practical curriculum materials (including guides on how to do something).

(09) Analyses of major trends and issues in education.

(09) Ready reference to specific facts or topics.

(09) Referral services telling user where to find any kind of information.

(08) Reviews or syntheses of related studies containing interpretations and recommendations.

(07) Theoretical papers dealing with conceptualization and philosophy.

(07) Tailored reports on statistical data (student achievement, financial, etc.)

(07) Factual evaluations of educational programs and practices.

(06) Concise digests of major news, current events, new issues or developments in education.

(06) Routine mailings of digests or abstracts of current information and new developments in various areas of interest (SDI).

(06) Access to subject matter or problem content experts for interpretation or evaluation of information.

(05) Access to someone to assist user in initiating new educational programs or practices.

(05) Access to experts in evaluating and recommending promising educational practices.

(04) Lists of human resources with descriptive information (expertise and availability of consultants, trainers, etc.).

(04) Specific searches of computer data bases to retrieve statistical data.

DISPLAY 96

*D7. Which of the activities on this list do you perform as part of your service? (List C)*

| FREQ | |
|---|---|
| (36) | Specific searches of literature files to identify relevant documents. |
| (28) | Quick delivery of requested documents. |
| (25) | Practical curriculum materials (including guides on how to do something) |
| (25) | Referral services telling user where to find any kind of information. |
| (25) | Access to an information specialist to assist in information searches. |
| (22) | Analyses of critical educational problems and discussion of alternative solutions. |
| (22) | Ready reference to specific facts or topics. |
| (21) | Examination of critical educational problems and their alternative solutions. |
| (20) | Access to subject matter or problem content experts for interpretation or evaluation of information. |
| (19) | Access to someone to assist user in initiating new educational programs or practices. |
| (18) | Technical reports dealing with methodology and findings. |
| (18) | Studies of actual cases that give concrete examples of educational innovations. |
| (17) | Concise digests of major news, current events, new issues, or developments in education. |
| (16) | Lists of human resources with descriptive information (expertise and availability of consultants, trainers, etc.). |
| (16) | Specific searches of computer data bases to retrieve statistical data. |
| (16) | Access to experts in evaluating and recommending promising educational practices. |
| (15) | Analyses of major trends and issues in education. |
| (15) | Tailored reports on statistical data (student achievement, financial, etc.). |
| (15) | Factual evaluations of educational programs and practices |
| (14) | Routine mailings of digests or abstracts of current information and new developments in various areas of interest (SDI). |

Continued

DISPLAY 96 (Continued)

| FREQ | |
|---|---|
| (13) | Reviews or syntheses of related studies containing interpretations and recommendations. |
| (12) | Theoretical papers dealing with conceptualization and philosophy. |
| (01) | No answer, can't answer, not specified |
| (01) | Not asked |
| (01) | Not applicable |

DISPLAY 97

*D8. Does your service use any computerized searching? Inhouse or out-of-house? On-line or batch?*

In-House Service

| FREQ | SERVICE | FREQ | ON-LINE OR BATCH |
|---|---|---|---|
| (24) | Inhouse | (12) | On-line |
| | | (10) | Batch |
| | | (02) | No answer, can't answer, not specified |
| (09) | Out-of-house | (04) | On-line |
| | | (03) | Batch |
| | | (02) | No answer, can't answer, not specified |
| (07) | No, none, nothing | | |
| (01) | Not asked | | |
| (01) | Not applicable | | |

Out-Of-House Service

| | | | |
|---|---|---|---|
| (11) | Out-of-house | (04) | Batch |
| | | (04) | On-line |
| | | (02) | No answer, can't answer, not specified |
| | | (01) | Not applicable |
| (04) | Inhouse | (02) | On-line |
| | | (01) | No answer, can't answer, not specified |
| | | (01) | Batch |
| (03) | No, none, nothing | | |
| (01) | Not asked | | |
| (01) | Not applicable | | |

DISPLAY 98

*D8. Does your service use any computerized searching? Inhouse or out-of-house? On-line or batch?*

| FREQ | IN-HOUSE OR OUT-OF-HOUSE | FREQ | ON-LINE OR BATCH? | FREQ | SUPPLIER |
|---|---|---|---|---|---|
| (36) | Inhouse | (18) | On-line | (11) | Commercial supplier |
| | | | | (05) | Not applicable |
| | | | | (01) | Govt. or non-profit supplier |
| | | | | (01) | No answer, can't answer, not specified |
| | | (14) | Batch | (10) | Not applicable |
| | | | | (02) | Govt. or non-profit supplier |
| | | | | (02) | No answer, can't answer, not specified |
| | | (04) | No answer, can't answer, not specified | (04) | No answer, can't answer, not specified |
| (21) | Out-of-house | (08) | Batch | (05) | No answer, can't answer, not specified |
| | | | | (02) | Govt. or non-profit supplier |
| | | | | (01) | Commercial supplier |
| | | (07) | On-line | (06) | Commercial supplier |
| | | | | (01) | No answer, can't answer, not specified |
| | | (05) | No answer, can't answer, not specified | (05) | No answer, can't answer, not specified |
| | | (01) | Not applicable | (01) | Govt. or non-profit supplier |
| (10) | No, none, nothing | | | | |
| (02) | Not asked | | | | |
| (02) | Not applicable | | | | |

DISPLAY 99

*D6. How are information requests received by your service? (E.g., walk-in, telephone, mail, field agents)*

| FREQ | REQUEST MODES | FREQ | FREQUENCY |
|---|---|---|---|
| (37) | Letter | (23) | Not specified |
| | | (12) | Primarily, modal (mainly similar) |
| | | (01) | Rarely |
| | | (01) | Variable: sometimes, occasionally, informally, maybe |
| (36) | Telephone call | (26) | Not specified |
| | | (07) | Primarily, modal (mainly similar) |
| | | (02) | Rarely |
| | | (01) | Variable: sometimes, occasionally, informally, maybe |
| (27) | Personal walk-in | (18) | Not specified |
| | | (05) | Primarily, modal |
| | | (03) | Variable: sometimes, occasionally, informally, maybe |
| | | (01) | Rarely |
| (16) | Field Agent, Linker | (11) | Not specified |
| | | (04) | Primarily, modal |
| | | (01) | Variable: sometimes, occasionally, informally, maybe |
| (04) | Not applicable | | |
| (03) | Not asked | | |
| (02) | Secretary, other staff rep. | (01) | Variable: sometimes, occasionally, informally, maybe |
| | | (01) | Not specified |
| (01) | Order form | (01) | Not specified |
| (01) | Reference Librarian | (01) | Primarily, modal |

DISPLAY 100

*D9a. Does your service make use of any of the products and services of an indexing and abstracting service (such as ERIC or NTIS)?*

*D9b. What are your opinions on these services in terms of ease of use, quality, utility, coverage, etc.?*

| FREQ | | FREQ | |
|---|---|---|---|
| (48) | ERIC | (10) | No answer, can't answer, not specified |
| | | (07) | Good to excellent quality |
| | | (04) | Very good (utility) |
| | | (03) | Requires training/familiarity to use |
| | | (02) | Hard to search manually |
| | | (02) | Inconsistent or inefficient indexing |
| | | (02) | Not up-to-date, timely |
| | | (02) | Excellent coverage |
| | | (02) | Need more practical things |
| | | (01) | Easy to use |
| | | (01) | Hard to evaluate contents |
| | | (01) | Improving quality |
| | | (01) | Abstract language too research-oriented |
| | | (01) | Need more information analysis |
| | | (01) | Too technical quality |
| | | (01) | Acquisitions not selective enough |
| | | (01) | Arbitrary acquisition |
| | | (01) | Clearinghouses too limited |
| | | (01) | Lack of concern for users |
| | | (01) | Not well known |
| | | (01) | Needs to be supplemented |
| | | (01) | Lacks quality control |
| | | (01) | Satisfactory quality |
| (13) | No, none, nothing | | |
| (10) | Education Index | (09) | No answer, can't answer, not specified |
| | | (01) | Good to excellent quality |
| (09) | NTIS | (05) | No answer, can't answer, not specified |
| | | (03) | Good to excellent quality |
| | | (01) | Hard to use |
| (08) | Psych. Abstracts | (03) | No answer, can't answer, not specified |
| | | (01) | Easy to use |
| | | (01) | Good to excellent quality |
| | | (01) | Inconsistent or inefficient indexing |
| | | (01) | Very good (utility) |
| | | (01) | Excellent coverage |

Continued

DISPLAY 100 (Continued)

| FREQ | | FREQ | |
|---|---|---|---|
| (06) | Dissertation Abstracts | (04) | No answer, can't answer, not specified |
| | | (01) | Not applicable |
| | | (01) | Limited contents |
| (05) | AIM/ARM | (02) | No answer, can't answer, not specified |
| | | (01) | Awkwardly arranged |
| | | (01) | Good to excellent quality |
| | | (01) | Lacks quality control |
| (05) | Social Science Citation Index | (03) | No answer, can't answer, not specified |
| | | (01) | Inconsistent or inefficient indexing |
| | | (01) | Too expensive |
| (04) | Not applicable | | |
| (03) | CAIN | (03) | No answer, can't answer, not specified |
| (03) | CEC-ECEA | (01) | No answer, can't answer, not specified |
| | | (01) | Good to excellent quality |
| | | (01) | Satisfactory quality |
| (03) | PAIS | (01) | No answer, can't answer, not specified |
| | | (01) | Not up-to-date, timely |
| | | (01) | Excellent coverage |
| (02) | Lockheed files | (02) | No answer, can't answer, not specified |
| (02) | Readers' Guide | (02) | No answer, can't answer, not specified |
| (01) | No answer, can't answer, not specified | | |
| (01) | CIS | (01) | No answer, can't answer, not specified |
| (01) | INFORM | (01) | Good to excellent quality |
| (01) | Index Medicus | (01) | No answer, can't answer, not specified |
| (01) | Excerpta Medica | (01) | No answer, can't answer, not specified |

DISPLAY 101

*D10. What other kinds of reference tools do you use most often in filling user requests?*

FREQ

(12) No, none, nothing
(08) Not applicable
(07) Personal or inhouse information files
(05) Other standard library reference
(04) CEDaR Catalog
(04) ALERT
(03) Buros' Mental Measurements Yearbook
(03) Experts
(02) No answer, can't answer, not specified
(02) State and Local curriculum files
(02) Westinghouse Learning Directory
(02) Book Review Digest
(02) SMERC
(01) Not asked
(01) Data source directories
(01) Directory of Associations
(01) Director of ERIC Users
(01) Educator's World
(01) Gale's Encyclopedia of Associations
(01) State personnel directories
(01) State school directories
(01) Telephone directories
(01) Who's Who
(01) Books in Print
(01) Buyers Lab
(01) El-Hi Textbooks in Print
(01) NICEM catalogs
(01) Dictionaires
(01) Encyclopedia
(01) Guide to Federal Assistance
(01) NCES Digest of Educational Statistics
(01) Book Review Index
(01) Review of Educational Research
(01) DIALOG Users Manual
(01) ERIC Descriptor/Identifier Usage Report
(01) ERIC Rotated Descriptor Display
(01) Union Serial List
(01) Engineering socieities
(01) RISE



Continued

DISPLAY 101 (Continued)

FREQ

(01) State Civil Rights Organizations
(01) State Human Rights Agencies
(01) Congressional Quarterly
(01) Education Daily
(01) Education Digest
(01) Education in the USA
(01) IDEA (Kettering)
(01) Government publications
(01) State Statutes
(01) State Library search service
(01) Handbook of Research on Teaching
(01) Encyclopedia of Educational Research
(01) Annual Review of Psychology
(01) Tests in Print
(01) PREP kits
(01) Xerox curriculum briefs

DISPLAY 102

*D11. (If literature searches are offered) What is your average turnaround time for a literature search? That is, how much time does it take, on the average, from the time a user's request is first received until the request is filled and ready for delivery?*

| FREQ | |
|---|---|
| (17) | Not applicable |
| (15) | 1-1/2 to 2 weeks |
| (10) | 1 week |
| (07) | 1-2 days |
| (03) | Less than 1 day |
| (01) | Not asked |

NOTE:

Qualifications: Many resources could be considerably faster in an emergency.

Type of serach is important. Computer search out-of-house makes the resource dependent on the supplier. Ready reference can range from instant response to a matter of a few hours. In-depth searches have a longer average.

DISPLAY 103

*D12a. Do you review, critique, screen, or repackage materials from a search before passing them along to the user?*

| FREQ | |
|---|---|
| (10) | Review |
| (09) | No, none, nothing |
| (09) | Screen, pass on only relevant things |
| (08) | Not applicable |
| (07) | Repackage |
| (06) | Yes |
| (05) | Review during search to adjust strategy |
| (04) | Critique, formally or informally |
| (03) | Variable: sometimes, occasionally, informally, maybe |
| (01) | Analyze |
| (01) | Explain search or include instruction sheet |
| (01) | Highlight relevant citations |

DISPLAY 104

*D12b. Do you feel that users look to you to take a position on the utility and value of materials' information content/style/form?*

| FREQ | |
|---|---|
| (25) | Yes |
| (20) | No, none, nothing |
| (06) | Not applicable |
| (02) | Don't know, can't recall |

DISPLAY 105

*D13a. Can you think of any specific products or services that your users need and are not now getting? If so, what are they and what do you think it would require to provide them?*

FREQ

(06) No, none, nothing
(05) No answer, can't answer, not specified
(05) Information analysis/synthesis products
(04) Good, current education statistics
(03) Computerized/reliable legislation file
(03) Machine-readable file of local policies and regulations
(03) Inservice, preservice training
(03) Local level sharing, cooperation
(02) Not asked
(02) Not applicable
(02) Teacher packages
(02) More human interaction
(02) More training and education of users to use information
(02) SDI
(02) Technical assistance
(02) More hard copy access to ERIC documents
(02) More AV, media materials
(01) Archive of old OE reports
(01) Automated retrieval in social sciences
(01) Catalog of needs assessment instruments
(01) Compilations of relevant research in specific areas, with implications for practice
(01) Condition of education by state
(01) Dissemination of locally-produced materials
(01) Easy access to census data
(01) Film catalogs
(01) Funds for access to more existing data bases
(01) Local management information
(01) Models for uniform education standards
(01) Network of successful practices
(01) Practical problems in higher education
(01) Research on practical topics
(01) Test banks, data set collections
(01) Timely collection, storage, indexing of reports below federal level
(01) Training syllabus file for staff training programs
(01) Up-to-date information on products and services of regional labs
(01) Examples of formats for materials selection
(01) Means of defining teacher competencies and matching to resources
(01) Teaching techniques

DISPLAY 105 (Continued)

| FREQ | |
|---|---|
| (01) | Travel funds for practitioner site visits |
| (01) | Definition of resource characteristics for better matching to severely handicapped |
| (01) | More follow-up evaluation on impact of materials |
| (01) | User validation of materials and equipment |
| (01) | Better, cheaper fiche reproduction |
| (01) | Better equipment |
| (01) | Communication network |
| (01) | Equipment rental library |
| (01) | Fiche readers in schools or district offices |
| (01) | Portable video equipment for televising |
| (01) | WATS lines for inter-resource communication |
| (01) | Installation for users of new programs |
| (01) | Complete P.R. campaign for ERIC |
| (01) | Computer access to Dissertation Abstracts other than through title |
| (01) | Expand clearinghouse scope |
| (01) | More communication from clearinghouses |
| (01) | Faster CIJE |
| (01) | Full access to journals, rights to reproduce them |
| (01) | More product announcements |
| (01) | Specialized bibliographies |
| (01) | Staff training for more efficient searches |
| (01) | Multimedia clearinghouse |

DISPLAY 106

*D22a. Are there any charges to the user associated with the use of your services or products?*

FREQ

(21) Yes
(12) No, none, nothing
(07) For some kinds of users, not others
(05) No answer, can't answer, not specified
(03) For computer searches
(03) Subscriptions
(02) Per search
(01) Variable: sometimes, occasionally, informally, maybe

*D22b. If so, to what extent to the charges offset your costs?*

FREQ

(18) No answer, can't answer, not specified
(13) Recover
(12) Not applicable
(03) Most costs
(03) Some costs
(02) Minor, minimal costs
(01) All plus profits
(01) Computer portions
(01) Not staff portions

DISPLAY 107

*D14. How do users obtain references or materials supplied by your service? (e.g., pick up, receive by mail, delivered in person)*

| FREQ | |
|---|---|
| (40) | Receive by mail |
| (18) | Pick up |
| (16) | Delivered in person |
| (04) | Not applicable |
| (02) | No answer, can't answer, not specified |
| (01) | Broadcast |
| (01) | Telephone |

DISPLAY 108

*D19. Have you noticed any differences between types of users? (E.g., in the nature of their requests, in their information needs, in their expectations, in their "information-proneness")*

FREQ

(14) No, none, nothing

(14) Role of user

(05) Information experience, sophistication

(03) No answer, can't answer, not specified

(03) Not applicable

(03) Geographical/political differences: region, district, state

(03) Amount of use--heavy, light

(03) Specific, practical, directly applicable requests

(03) Personality, personal style

(02) Don't know, can't recall

(02) Yes

(02) General, less specific requests

(02) Differ in subject content

(01) Not asked

(01) Age or years of experience

(01) Confidence in own skills

(01) Contexts, influences

(01) Research orientation

(01) Afraid of exposure to unsettling information

(01) Discerning, not discerning

(01) Don't want to spend time negotiating

(01) Want everything, hard to satisfy

(01) Want quick and dirty information

(01) Want to scan literature

(01) Research-oriented requests

(01) Want small amount of information or analyzed information

DISPLAY 109

*D18. Generally speaking, how sophisticated do you feel your users are in terms of their information seeking and use?*

| FREQ | |
|---|---|
| (10) | Above average |
| (10) | Wide variations |
| (08) | Very sophisticated |
| (07) | Not sophisticated |
| (05) | Sophistication is increasing |
| (04) | Don't know, can't recall |
| (04) | Below average |
| (04) | 50/50 |
| (03) | No answer, can't answer, not specified |
| (03) | Average, adequate |
| (01) | Search formulation skills low (distinct from question formulation) |
| (01) | Some users totally helpless |
| (01) | Users frame good questions, know what they want |
| (01) | Users good estimators of "real" issues |

| Region | Span/Level (Display 4) Orientation (1) | | | | Collection Types (2) | Audience Types (3) | Institutional Base (4) | Collection Contents (5) | | Staff Size (6) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | F | P | |
| NORTHWEST | NAT.-IND./COLL | A | | | 02 | 12 | 01 | 07 | 08 | |
| | ST.-ST./SERV | A | | | 01,06 | 11 | 05 | 02 | 02 | |
| SOUTHWEST | NAT.-IND./COLL | | B | | 01 | 12 | 08 | 06 | 07 | |
| | NAT.-LOC./PROD | | | C | 01 | 12 | 08 | 05 | 12 | |
| | REG.-IND./SERV | A | | | 01 | 03 | 05 | 51 | 20 | |
| | REG.-IND./SERV | | | C | 01 | 12 | 05,11 | 35 | 45 | |
| | ST.-ST./AUDI | A | | | 04,06 | 11 | 05,09 | 08 | | |
| | ST.-LOC./COLL | A | B | C | 01 | 11 | 06 | 24 | | |
| | ST.-LOC./SERV | A | | | 01 | 11 | 05 | 04 | | |
| | COUNTY/SERV | A | | | 01 | 03 | 05, | 05 | 03 | |
| | CITY/COLL | A | | | 01 | 05 | 05 | 28 | | |
| | CITY/PROD | A | B | | 01 | 05 | 07 | 15 | 05 | |
| | CAMPUS/PROD | | | C | 01 | NA | 05,11 | 12 | | |
| | CITY/SERV | | B | C | 01 | 03 | 05,06,07 | 26 | | |
| MOUNTAIN | NAT.-STATE/AUD | A | | | 04,06 | 10 | 09 | 14 | 01 | |
| | NAT.-ST./AUDI | A | | | 05 | 10 | 09 | 03 | 03 | |
| | REG.-IND./PROD | A | | | 02 | 02 | 01 | 37 | 06 | |
| | REG.-IND./SERV | | | C | 01 | 03 | 05 | 04 | | |
| | ST.-LOC./SERV | | | C | 01 | 11 | 05 | 01 | 01 | |
| PLAINS | ST.-LOC./SERV | A | B | | 01 | 03 | 04 | 78 | | |
| | ST.-LOC./SERV | A | | | 01 | 11 | 05 | 05 | | |
| | COUNTY/PROD | A | | | 01 | 02 | 04 | 01 | 03 | |
| LAKES | NAT.-IND./COLL | A | | C | 01 | 12 | 13 | 24 | | |
| | NAT.-IND./COLL | A | | | 01 | 12 | 13 | 05 | 03 | |
| | NAT.-IND./COLL | | B | | 08 | 12 | 06 | 02 | 04 | |
| | NAT.-FED./COLL | | B | C | 08 | 12 | 06 | 25 | | |
| | NAT.-IND./PROD | A | | | 01 | 09 | 03 | 02 | 38 | |
| | NAT.-IND./SERV | | | C | 01 | 10 | 05 | 01 | 02 | |
| | ST.-LOC./PROD | | | C | 08 | 05 | 06 | 03 | 12 | |
| | ST.-LOC./SERV | A | | C | 02 | 11 | 05 | 01 | 02 | |

(1) COLL = collection
SERV = service-oriented
PROD = product-oriented
AUDI = audience-oriented

(2) A = Print
B = Non-Print
C = Machine-Readable

(3) 01 = All types
02 = Administrators, Managers
03 = Education Researchers
04 = Policy-makers, Legislators
05 = School Board Members
06 = SEA Staff
07 = Social Scientists
08 = Special/Handicapped Ed.

(4) 01 = College
02 = Consortium
03 = Intermediate Education Agency
04 = Jr/Community College
05 = Local Education Agency
06 = National Institute of Education
07 = Other Federal Government
08 = Other Local Government
09 = Private, For-Profit Org.
10 = Private, Non-Profit Org.
11 = State Education Agency
12 = University
13 = U.S. Office of Education

(5) 01 = Administration and Management
02 = Civil Rights
03 = Curriculum Materials
04 = Innovative Practices
05 = General Education
06 = Handicapped, Special Ed.
07 = Instructional Materials
08 = Non-Print Media
09 = Policy-making
10 = Psychology
11 = Scientific/Technical
12 = Statistics
13 = Voc., Tech., Career/Education

(6) F = Full-time
P = Part-time

Figure 2. Sample Characteristics

| Region | Span/Level (Display 4) Orientation (1) | Collection Types (2) | | | Audience Types (3) | Institutional Base (4) | Collection Contents (5) | Staff Size (6) | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | F | P |
| SOUTHEAST | NAT.-IND./COLL | A | | | 08 | 10 | 06 | 19 | |
| | NAT.-IND./PROD | A | B | | 01 | 12 | 03,05 | 02 | 04 |
| | ST.-LOC./PROD | | B | | 01 | 09 | 08 | 32 | 08 |
| | ST.-ST./SERV | A | | | 04,06 | 11 | 05,09 | 02 | 02 |
| | ST.-LOC./SERV | A | | | 02 | 11 | 01 | 22 | |
| | ST.-LOC./SERV | A | | C | 01 | 11 | 13 | 42 | |
| NORTHEAST | NAT.-IND./PROD | A | | | 01 | 10 | 07,08 | 12 | |
| | ST.-LOC./SERV | A | | | 01 | 11 | 03,04,05, 06,07 | 07 | 05 |
| | ST.-LOC./SERV | A | | | 01 | 05 | 05 | 02 | 04 |
| | ST.-LOC./SERV | A | | | 01 | 10 | 05 | 11 | 04 |
| | ST.-LOC./SERV | A | | | 01 | 03 | 05 | 17 | 17 |
| | ST.-LOC./SERV | A | | | 01 | 11 | 03,13 | 09 | |
| | ST.-LOC./SERV | | | | 01 | 10 | 05 | 04 | 12 |
| | ST.-LOC./SERV | A | | C | 01 | 01 | 13 | -8 | 10 |
| | COUNTY/AUDI | A | | | 01 | 03 | 05 | 05 | 04 |
| | LOC./COLL | | | C | 07 | 12 | 12 | 10 | 06 |
| W.D.C. | NAT.-FED./AUDI | A | | C | 02 | 10 | 01,09 | 14 | |
| | NAT.-ST./AUDI | A | | | 04 | 10 | 09 | 06 | |
| | NAT.-FED./COLL | A | | | 01 | 07 | 02 | 06 | |
| | NAT.-IND./PROD | | | C | 07 | 10 | 10 | 34 | |
| | NAT.-FED./PROD | | | C | 01 | 07 | 12 | 04 | 01 |
| | NAT.-LOC./SERV | A | | | 02 | 10 | 01,05 | 14 | 06 |
| | NAT.-IND./SERV | A | | | 01 | 10 | 05,09 | 08 | |

(1) COLL = collection
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AUDI = audience-oriented

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02 = Administrators, Managers
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(5) 01 = Administration and Management
02 = Civil Rights
03 = Curriculum Materials
04 = Innovative Practices
05 = General Education
06 = Handicapped, Special Ed.
07 = Instructional Materials
08 = Non-Print Media
09 = Policy-making
10 = Psychology
11 = Scientific/Technical
12 = Statistics
13 = Voc., Tech., Career/Education

(6) F = Full-time
P = Part-time

Figure 2. Sample Characteristics (continued)

## LIST OF ACRONYMS

| | |
|---|---|
| ACE | American Council of Education |
| ACES | Area Cooperative Education Service |
| AIM/ARM | Vocational Education files from Ohio State |
| APA | American Psychological Association |
| ARM-ERIC | Vocational Education files from Ohio State |
| ALERT | Curriculum source book published by Far West Laboratory |
| BEH | Bureau of Education for the Handicapped (USOE) |
| CAI | Computer Aided Instruction |
| CAIN | Cataloging and Indexing (National Agriculture Library) |
| CEC | Council for Exceptional Children |
| CEDAR | Catalog of R & D in Education |
| CIJE | Current Index to Journals in Education |
| CIS | Congressional Information Service |
| COM | Computer Output to Microfiche |
| DATRIX | Xerox University Microfilms |
| DIALOG | Lockheed On-Line Information Retrieval System |
| DoT | Department of Transportation |
| ECS | Education Commission of the States |
| EIC | Education Information Center |
| EDSTAT | NCES On-Line Statistics System |
| ERIC | Education Research Information Center |
| ERS | Education Research Service |
| ESEA | Elementary and Secondary Education Act |
| ETS | Education Testing Service |
| FEA | Federal Education Agency |
| IDEA | Institute for Development of Educational Activities |
| INFORM | Business data base of Louisville Data-Courier |
| LEA | Local Education Agency |
| L.C. | Library of Congress |

## LIST OF ACRONYMS

(continued)

| | |
|---|---|
| MEDLARS | Medical Literature Analyses and Retrieval System |
| NASA | National Aeronautics and Space Agency |
| NASB | National Association of School Boards |
| NCEMMH | National Center of Education Media and Material for the Handicapped |
| NCES | National Center for Education Statistics |
| NEA | National Education Association |
| NICEM | National Information Center for Education Media |
| NIMIS | National Instructional Material Information System |
| NTIS | National Technical Information Center |
| NSF | National Science Foundation |
| NIE | National Institute of Education |
| PAIS | Public Affairs Information Service |
| RISE | Research and Information Services for Education |
| RCU | Resource Coordination Unit |
| SDI | Selective Dissemination of Information |
| SEA | State Education Agency |
| SIG ASIS | Special Interest Group, American Society for Information Science |
| SMERC | San Mateo Education Research Center |
| USOE | U.S. Office of Education |